STIC Search Report
EIC 1700

STIC Database Tracking Number: 185723

TO:	From:
Camie Thompson Location: REM 10D28 Art Unit : 1774 April 25, 2006 Case Serial Number: 10/782357	Les Henderson Location: EIC 1700 REMSEN 4B30 Phone: 571/272-2538 Leslie.Henderson@uspto.gov

Search Notes

Access DB# 185723

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Camil Thompson Examiner #: 79240 Date: 4/6/06
Art Unit: 1774 Phone Number 30 571 272 1530 Serial Number: 10/782,357
Mail Box and Bldg/Room Location: Rem 10 D 52 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Compositions comprising novel compounds and electronic devices

Inventors (please provide full names): Norman Herron, Gary A. Johansson, Nora Rae Arthur Dabrowski, Frederick Gentry, Gene H. Rissi

Earliest Priority Filing Date: 8/19/04

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please do a search on all claims & compounds.

4/19/04

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STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
Searcher: KM	NA Sequence (#)		STN	$ 957.92
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)	4	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 4/25/06	Litigation		Lexis/Nexis	
Searcher Prep & Review Time: 30	Fulltext		Sequence Systems	
Clerical Prep Time: 15	Patent Family		WWW/Internet	
Online Time: 180	Other		Other (specify)	

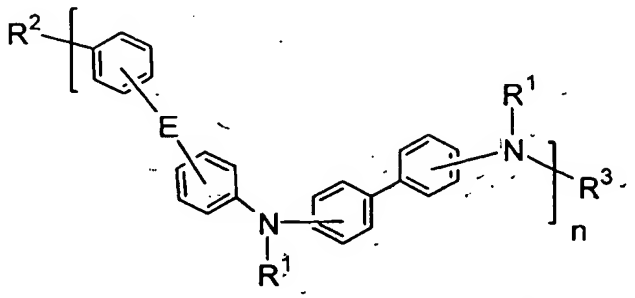
PTO-1590 (8-01)

10/782,357

CLAIMS

What is claimed is:

1. A compound having the formula:



(I)

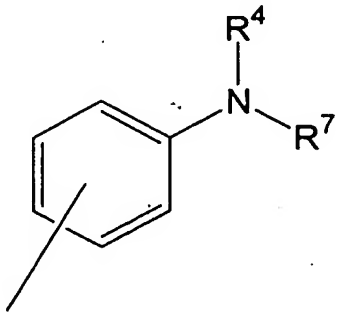
wherein:

n is an integer of at least 1;

R^1 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms;

R^3 is selected from H and R^1;

R^2 is selected from H, R^1, alkyl, fluoroalkyl, Cl, Br, I and an arylamino group of formula (II),



(II)

wherein R^4 is selected from aryl, H, R^1, alkyl, and fluoroalkyl; R^7 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms, preferably up to 7 fluorine atoms;

R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy. R^5 and R^6 can, when taken together, form a ring; R^7 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms, preferably up to 7 fluorine atoms; and

E is selected from O, S, $(SiR^5R^6)_m$ wherein m is an integer of 1 to 20, $(CR^5R^6)_m$ wherein m is an integer of 1 to 20, and combinations thereof, wherein R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy and wherein R^5 and R^6 can, when taken together, form a non-aromatic ring, provided that when E is $(CR^5R^6)_m$, and n is greater than 1 and m is 1, at least one of R^5 and R^6 is not hydrogen or a hydrocarbon.

2. The compound of claim 1, and wherein R^5 and R^6, when taken together, form a non-aromatic ring.

3. The compound of claim 1 wherein n is greater than 1.

4. The compound of claim 2 wherein R^1 is different at each occurrence.

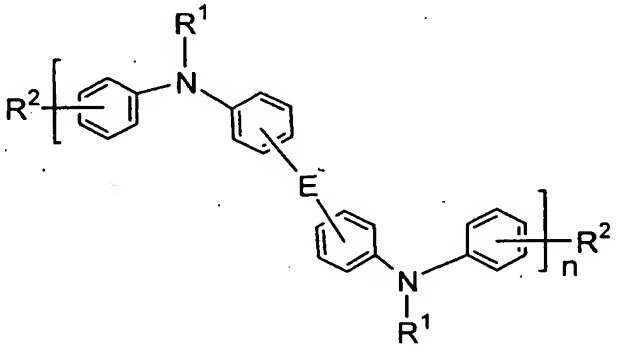
5. The compound of claim 1 wherein R^2 is H.

6. The composition of claim 5 wherein R^3 is aryl.

7. The compound of claim 1 wherein R^1 is selected from phenyl, 1-naphthyl, and 2-naphthyl.

8. The compound of claim 1 wherein n = 1, R^2 is H, and R^3 is selected from phenyl, 1-naphthyl, and 2-naphthyl.

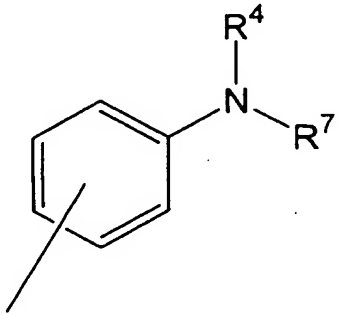
9. A compound of formula (III):



(III)

wherein

n is an integer of at least 1, R^1 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl. preferably, R1 is aryl and may be different at each occurrence (i.e. copolymers). R^2 is selected from H, R^1, alkyl, fluoroalkyl, Cl, Br, I and arylamino of formula (II)



(II)

R^4 is selected from aryl, H, R^1, alkyl, fluoroalkyl; and

E is selected from O, S, $(SiR^5R^6)_m$ wherein m is an integer of 1 to 20, $(CR^5R^6)_m$ wherein m is an integer of 1 to 20, and combinations thereof, and can be different at each occurrence, wherein R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy and wherein R^5 and R^6 can, when taken together, form a non-aromatic ring, provided that when E is $(CR^5R^6)_m$, and n is greater than 1 and m is 1, at least one of R^5 and R^6 is not hydrogen or a hydrocarbon.

10. The compound of claim 9 wherein R^1 is different at each occurrence.

11. The compound of claim 9, wherein R^5 and R^6, when taken together, form a non-aromatic ring.

12. The compound of claim 9 wherein R^2 is H or aryl.

13. The compound of claim 9 wherein R^3 is aryl.

14. The compound of claim 9 wherein R^4 is aryl.

15. The compound of claim 9 wherein R^1 is selected from phenyl, 1-naphthyl, and 2-naphthyl.

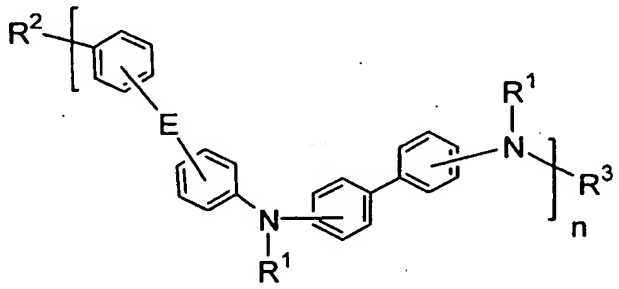
16. The compound of claim 9 wherein n = 1, R^2 is H, and R^3 is selected from phenyl, 1-naphthyl, and 2-naphthyl.

17. The compound of claim 9 wherein at least one aromatic ring in the compound of formula (III) has a substituent selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy.

18. The compound of claim 9 wherein substituents on two neighboring aromatic rings in the compound of formula (III) together form an aromatic or non-aromatic ring.

19. The compound of claim 9 wherein adjacent substituents on at least one aromatic ring together form a fused aromatic or non-aromatic ring.

20. A composition comprising a compound of at least one compound selected from:



(I)

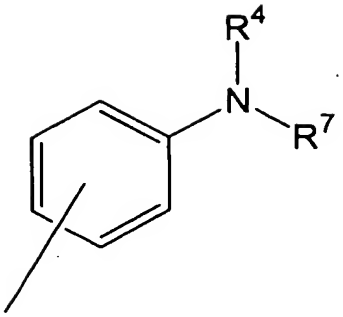
wherein:

n is an integer of at least 1;

R^1 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms;

R^3 is selected from H and R^1;

R^2 is selected from H, R^1, alkyl, fluoroalkyl, Cl, Br, I and an arylamino group of formula (II),



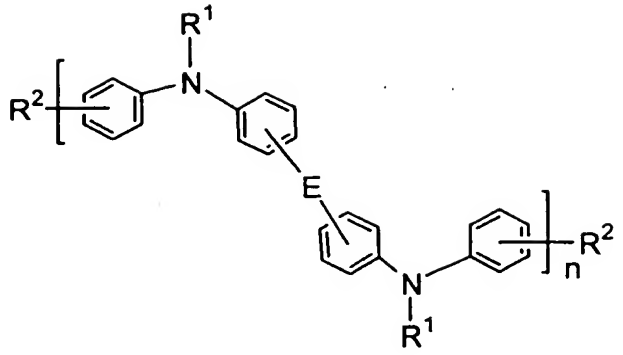
(II)

wherein R^4 is selected from aryl, H, R^1, alkyl, and fluoroalkyl; R^7 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms, preferably up to 7 fluorine atoms;

R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy. R^5 and R^6 can, when taken together, form a ring; R^7 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms, preferably up to 7 fluorine atoms; and

E is selected from O, S, $(SiR^5R^6)_m$ wherein m is an integer of 1 to 20, $(CR^5R^6)_m$ wherein m is an integer of 1 to 20, and combinations thereof, wherein R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy and wherein R^5 and R^6 can, when taken together, form a non-aromatic ring, provided that when E is $(CR^5R^6)_m$, and n is greater than 1 and m is 1, at least one of R^5 and R^6 is not hydrogen or a hydrocarbon.

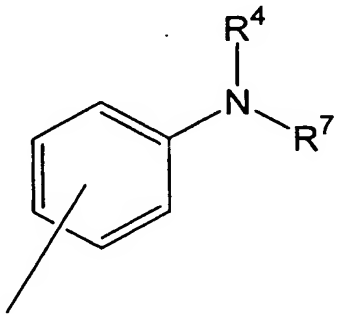
and



(III)

wherein

n is an integer of at least 1, R^1 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl. preferably, R1 is aryl and may be different at each occurrence (i.e. copolymers). R^2 is selected from H, R^1, alkyl, fluoroalkyl, Cl, Br, I and arylamino of formula (II)



(II)

R^4 is selected from aryl, H, R^1, alkyl, fluoroalkyl; and

E is selected from O, S, $(SiR^5R^6)_m$ wherein m is an integer of 1 to 20, $(CR^5R^6)_m$ wherein m is an integer of 1 to 20, and combinations thereof, and can be different at each occurrence, wherein R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy and wherein R^5 and R^6 can, when taken together, form a non-aromatic ring, provided that when E is

$(CR^5R^6)_m$, and n is greater than 1 and m is 1, at least one of R^5 and R^6 is not hydrogen or a hydrocarbon.

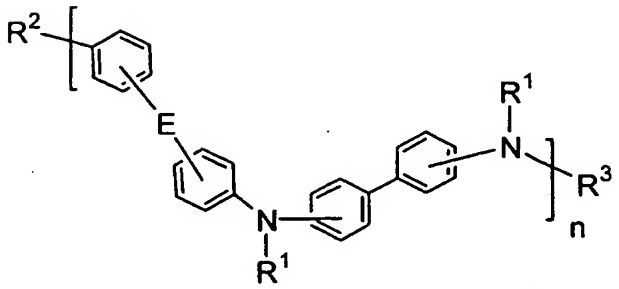
21. An electronic device comprising at least one layer comprising at least one compound selected from the compounds of Claim 1 or Claim 9.

22. The device of Claim 21, wherein the layer is a charge transport layer.

23. The device of Claim 21, wherein the layer is a light-emitting layer.

24. A process for producing a polymer, comprising:

(a) providing two or more compounds having the formulae (I) or (III):



(I)

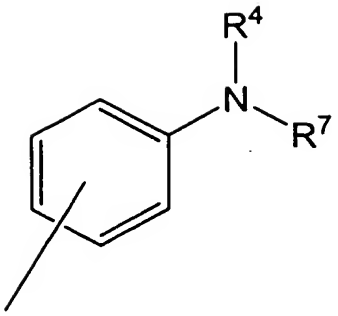
wherein:

n is an integer of at least 1;

R^1 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms;

R^3 is selected from H and R^1;

R^2 is selected from H, R^1, alkyl, fluoroalkyl, Cl, Br, I and an arylamino group of formula (II),



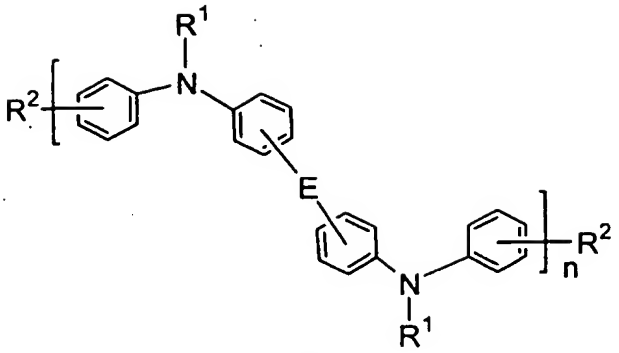
(II)

wherein R^4 is selected from aryl, H, R^1, alkyl, and fluoroalkyl; R^7 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms, preferably up to 7 fluorine atoms;

R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy. R^5 and R^6 can, when taken together, form a ring; R^7 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl substituted with 1 or more fluorine atoms, preferably up to 7 fluorine atoms; and

E is selected from O, S, $(SiR^5R^6)_m$ wherein m is an integer of 1 to 20, $(CR^5R^6)_m$ wherein m is an integer of 1 to 20, and combinations thereof, wherein R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy and wherein R^5 and R^6 can, when taken together, form a non-aromatic ring, provided that when E is $(CR^5R^6)_m$, and n is greater than 1 and m is 1, at least one of R^5 and R^6 is not hydrogen or a hydrocarbon

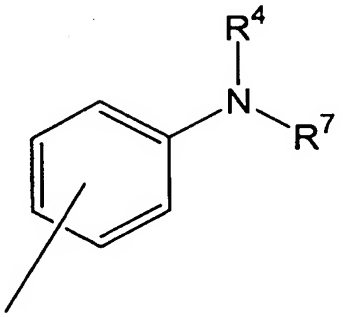
or



(III)

wherein

n is an integer of at least 1, R^1 is selected from aryl, heteroaryl, fluoroaryl, and fluoroheteroaryl. preferably, R1 is aryl and may be different at each occurrence (i.e. copolymers). R^2 is selected from H, R^1, alkyl, fluoroalkyl, Cl, Br, I and arylamino of formula (II)



(II)

R^4 is selected from aryl, H, R^1, alkyl, fluoroalkyl; and

E is selected from O, S, $(SiR^5R^6)_m$ wherein m is an integer of 1 to 20, $(CR^5R^6)_m$ wherein m is an integer of 1 to 20, and combinations thereof, and can be different at each occurrence, wherein R^5 and R^6 are each independently selected from H, F, alkyl, aryl, alkoxy, aryloxy, fluoroalkyl, fluoroaryl, fluoroalkoxy, and fluoroaryloxy and wherein R^5 and R^6 can, when taken together, form a non-aromatic ring, provided that when E is $(CR^5R^6)_m$, and n is greater than 1 and m is 1, at least one of R^5 and R^6 is not hydrogen or a hydrocarbon.

(b) reacting said compounds in the presence of a copper, nickel, or palladium catalyst while maintaining said compounds at a temperature of 22°C to 150°C for 24 to 92 hours, to form a first polymer;

(c) treating said polymer with an endcapping group to form a capped polymer; and

(d) further reacting said capped polymer for 24 to 48 hours to produce said polymer.

25. The device of Claim 21, wherein the device is selected from a light-emitting diode, a light-emitting diode display, a laser diode, a photodetector, photoconductive cell, photoresistor, photoswitch, phototransistor, phototube, IR-detector, photovoltaic device, solar cell, transistor or diode.

STIC Search Results Feedback Form

USPTO

EIC17000

Questions about the scope or the results of the search? Contact ***the EIC searcher or contact:***

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1713*
- *Relevant prior art* ***found****, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art* ***not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

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=> d his ful

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     FILE 'HCAPLUS' ENTERED AT 11:39:00 ON 25 APR 2006
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                D ALL
                SEL RN

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                863133-52-2/BI OR 863133-53-3/BI OR 863133-54-4/BI OR
                863133-55-5/BI OR 90-14-2/BI)
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                D L2 1-10 RN STR

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L5              SCR 1843
L6           25 SEA SSS SAM L3 AND L5
                D QUE STAT

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L7              STR L3

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L9         4720 SEA SSS FUL L7 AND L5
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                DIS
                D QUE STAT
L10             STR L3

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L12         392 SEA SUB=L9 SSS FUL L10
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L14           4 SEA ABB=ON  PLU=ON  L9 AND L2
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L18           3 SEA ABB=ON  PLU=ON  L2 AND L17
                D SCAN
L19           3 SEA ABB=ON  PLU=ON  L13 OR L18
L20           8 SEA ABB=ON  PLU=ON  L12 AND 1-20/F
L21          68 SEA ABB=ON  PLU=ON  L17 AND 1-20/F
L22          74 SEA ABB=ON  PLU=ON  L20 OR L21

     FILE 'REGISTRY' ENTERED AT 13:07:04 ON 25 APR 2006

     FILE 'HCAPLUS' ENTERED AT 13:07:16 ON 25 APR 2006
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L44         372 SEA ABB=ON  PLU=ON  L40 AND L27
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                 L(W)E(W)D
L65         1537 SEA ABB=ON  PLU=ON  L64(3A)DISPLAY?
L66        28166 SEA ABB=ON  PLU=ON  LASER(2A)DIODE
L67              QUE ABB=ON  PLU=ON  PHOTODETECTOR OR PHOTOCONDUCT? OR
                 PHOTORESIST? OR PHOTOSWITCH? OR PHOTOTRANSISTOR OR
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                 RESISTOR? OR SWITCH? OR TRANSISTOR OR TUBE?)
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L73           32 SEA ABB=ON  PLU=ON  L72 AND L41
L74           46 SEA ABB=ON  PLU=ON  L73 OR L70
L75           61 SEA ABB=ON  PLU=ON  L74 OR L57
L76           15 SEA ABB=ON  PLU=ON  L75 NOT L74
                 D SCAN TI


=> => d que stat l9
L5               SCR 1843
L7               STR
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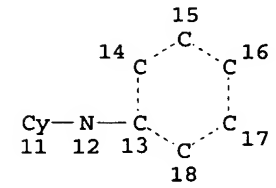
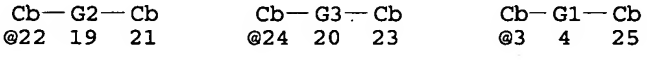
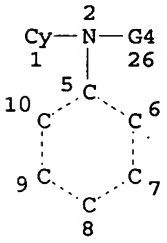
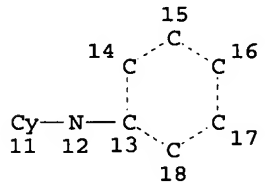







```
VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3/22/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   1
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT  11
GGCAT   IS UNS  AT  21
GGCAT   IS UNS  AT  22
GGCAT   IS UNS  AT  23
GGCAT   IS UNS  AT  24
GGCAT   IS UNS  AT  25
DEFAULT ECLEVEL IS LIMITED
```

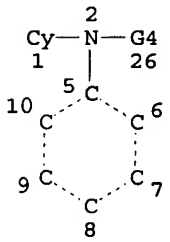
```
ECOUNT  IS E6 C  AT   3
ECOUNT  IS E6 C  AT  21
ECOUNT  IS E6 C  AT  22
ECOUNT  IS E6 C  AT  23
ECOUNT  IS E6 C  AT  24
ECOUNT  IS E6 C  AT  25

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  26

STEREO ATTRIBUTES: NONE
L9         4720 SEA FILE=REGISTRY SSS FUL L7 AND L5

100.0% PROCESSED  414929 ITERATIONS                      4720 ANSWERS
SEARCH TIME: 00.00.06


=> d que stat l12
L5                SCR 1843
L7                STR
```



Cb—G2—Cb
@22 19 21

Cb—G3—Cb
@24 20 23

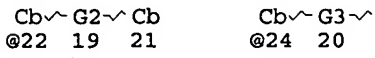
Cb—G1—Cb
@3 4 25

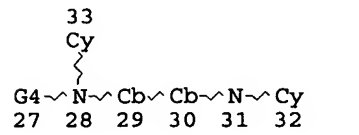



```
VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3/22/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   1
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT  11
GGCAT   IS UNS  AT  21
GGCAT   IS UNS  AT  22
GGCAT   IS UNS  AT  23
GGCAT   IS UNS  AT  24
GGCAT   IS UNS  AT  25
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E6 C  AT   3
ECOUNT  IS E6 C  AT  21
ECOUNT  IS E6 C  AT  22
ECOUNT  IS E6 C  AT  23
ECOUNT  IS E6 C  AT  24
ECOUNT  IS E6 C  AT  25

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
```

NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE
L9 4720 SEA FILE=REGISTRY SSS FUL L7 AND L5
L10 STR





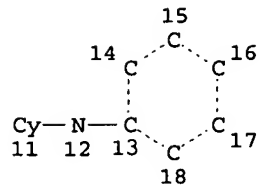
VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3/22/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
GGCAT IS UNS AT 21
GGCAT IS UNS AT 22
GGCAT IS UNS AT 23
GGCAT IS UNS AT 24
GGCAT IS UNS AT 25
GGCAT IS UNS AT 29
GGCAT IS UNS AT 30
GGCAT IS UNS AT 32
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E6 C AT 3
ECOUNT IS E6 C AT 21
ECOUNT IS E6 C AT 22
ECOUNT IS E6 C AT 23
ECOUNT IS E6 C AT 24
ECOUNT IS E6 C AT 25
ECOUNT IS E6 C AT 29
ECOUNT IS E6 C AT 30

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L12 392 SEA FILE=REGISTRY SUB=L9 SSS FUL L10

100.0% PROCESSED 4720 ITERATIONS 392 ANSWERS
SEARCH TIME: 00.00.01

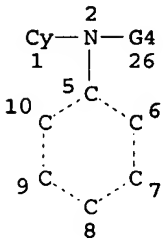
=> d que stat l17
L5 SCR 1843
L7 STR



Cb— G2— Cb
@22 19 21

Cb— G3— Cb
@24 20 23

Cb— G1— Cb
@3 4 25



VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3/22/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 1
GGCAT IS UNS AT 3
GGCAT IS UNS AT 11
GGCAT IS UNS AT 21
GGCAT IS UNS AT 22
GGCAT IS UNS AT 23
GGCAT IS UNS AT 24
GGCAT IS UNS AT 25
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E6 C AT 3
ECOUNT IS E6 C AT 21
ECOUNT IS E6 C AT 22
ECOUNT IS E6 C AT 23
ECOUNT IS E6 C AT 24
ECOUNT IS E6 C AT 25

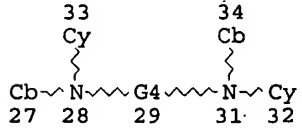
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE
L9 4720 SEA FILE=REGISTRY SSS FUL L7 AND L5
L15 STR

Cb~ G2~ Cb
@22 19 @21

Cb~ G3~ Cb
@24 20 @23

Cb~ G1~ Cb
@3 4 @25



VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3-28 25-31/24-28 23-31/22-28 21-31
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM

```
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT  21
GGCAT   IS UNS  AT  22
GGCAT   IS UNS  AT  23
GGCAT   IS UNS  AT  24
GGCAT   IS UNS  AT  25
GGCAT   IS UNS  AT  27
GGCAT   IS UNS  AT  32
GGCAT   IS UNS  AT  33
GGCAT   IS UNS  AT  34
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E6 C  AT   3
ECOUNT  IS E6 C  AT  21
ECOUNT  IS E6 C  AT  22
ECOUNT  IS E6 C  AT  23
ECOUNT  IS E6 C  AT  24
ECOUNT  IS E6 C  AT  25

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
L17        1592 SEA FILE=REGISTRY SUB=L9 SSS FUL L15

100.0% PROCESSED    4720 ITERATIONS                      1592 ANSWERS
SEARCH TIME: 00.00.01


=> d que stat l34
L5               SCR 1843
L7               STR
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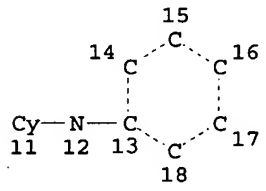
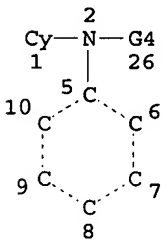


Cb—G2—Cb
@22 19 21

Cb—G3—Cb
@24 20 23

Cb—G1—Cb
@3 4 25




```
VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3/22/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   1
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT  11
GGCAT   IS UNS  AT  21
GGCAT   IS UNS  AT  22
GGCAT   IS UNS  AT  23
GGCAT   IS UNS  AT  24
```

```
GGCAT   IS UNS  AT  25
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E6 C  AT   3
ECOUNT  IS E6 C  AT  21
ECOUNT  IS E6 C  AT  22
ECOUNT  IS E6 C  AT  23
ECOUNT  IS E6 C  AT  24
ECOUNT  IS E6 C  AT  25

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  26

STEREO ATTRIBUTES: NONE
L9          4720 SEA FILE=REGISTRY SSS FUL L7 AND L5
L10              STR
 Cb~ G2~ Cb        Cb~ G3~ Cb        Cb~ G1~ Cb
@22  19   21       @24  20   23       @3   4    25


     33
     Cy
      \
 G4~ N~ Cb~ Cb~ N~ Cy
 27  28  29  30  31  32

VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3/22/24
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT   IS UNS  AT   3
GGCAT   IS UNS  AT  21
GGCAT   IS UNS  AT  22
GGCAT   IS UNS  AT  23
GGCAT   IS UNS  AT  24
GGCAT   IS UNS  AT  25
GGCAT   IS UNS  AT  29
GGCAT   IS UNS  AT  30
GGCAT   IS UNS  AT  32
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS E6 C  AT   3
ECOUNT  IS E6 C  AT  21
ECOUNT  IS E6 C  AT  22
ECOUNT  IS E6 C  AT  23
ECOUNT  IS E6 C  AT  24
ECOUNT  IS E6 C  AT  25
ECOUNT  IS E6 C  AT  29
ECOUNT  IS E6 C  AT  30

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
L12          392 SEA FILE=REGISTRY SUB=L9 SSS FUL L10
L15              STR
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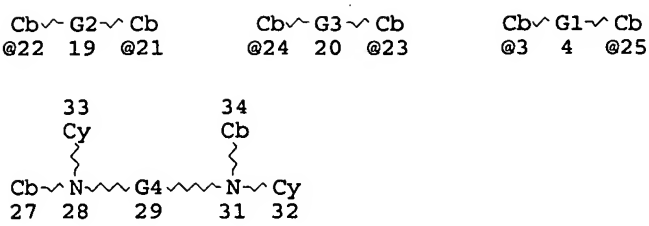
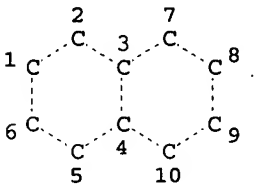


VAR G1=O/S
REP G2=(1-20) C
REP G3=(1-20) SI
VAR G4=3-28 25-31/24-28 23-31/22-28 21-31
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 3
GGCAT IS UNS AT 21
GGCAT IS UNS AT 22
GGCAT IS UNS AT 23
GGCAT IS UNS AT 24
GGCAT IS UNS AT 25
GGCAT IS UNS AT 27
GGCAT IS UNS AT 32
GGCAT IS UNS AT 33
GGCAT IS UNS AT 34
DEFAULT ECLEVEL IS LIMITED
ECOUNT IS E6 C AT 3
ECOUNT IS E6 C AT 21
ECOUNT IS E6 C AT 22
ECOUNT IS E6 C AT 23
ECOUNT IS E6 C AT 24
ECOUNT IS E6 C AT 25

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 16

STEREO ATTRIBUTES: NONE
L17 1592 SEA FILE=REGISTRY SUB=L9 SSS FUL L15
L31 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L33 398 SEA FILE=REGISTRY SUB=L9 SSS FUL L31
L34 121 SEA FILE=REGISTRY ABB=ON PLU=ON L33 AND (L12 OR L17)

=> => d l74 1-46 ibib abs hitstr hitind

L74 ANSWER 1 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:10916 HCAPLUS
DOCUMENT NUMBER: 144:78007
TITLE: Photosensitive lithographic printing plates for direct platemaking, and their printing method
INVENTOR(S): Hotta, Yoshinori; Inno, Norifumi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006001183	A2	20060105	JP 2004-181140	2004 0618
PRIORITY APPLN. INFO.:			JP 2004-181140	2004 0618

AB The plates consist of Al supports having boehmite protrusions with average height 15-45 μm on anodized surfaces, and photosensitive composition layers containing hydrophilic heat-sensitive ionomers and IR absorbers. The plates show good printing durability and soiling resistance.

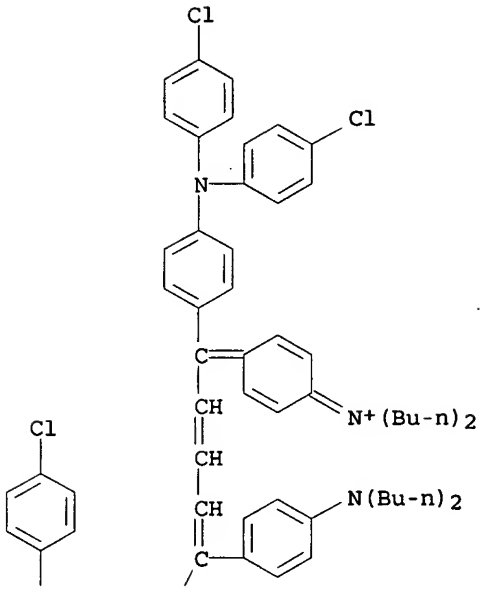
IT **463966-37-2 463966-41-8 463966-43-0 517891-87-1**
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(IR absorber; photosensitive lithog. printing plates having Al supports with specific boehmite protrusions)

RN 463966-37-2 HCAPLUS
CN 1-Butanaminium, N-[4-[1,5-bis[4-[bis(4-chlorophenyl)amino]phenyl]-5-[4-(dibutylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-N-butyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

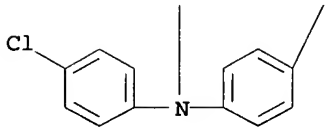
CM 1

CRN 463966-36-1
CMF C69 H71 Cl4 N4

PAGE 1-A

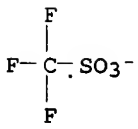


PAGE 2-A



CM 2

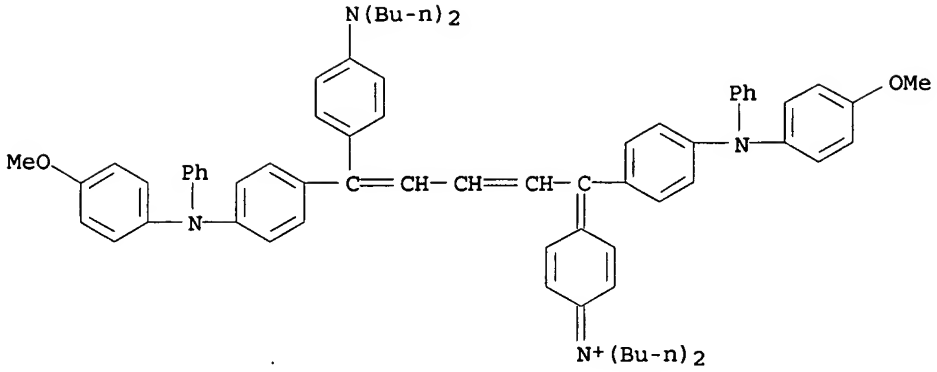
CRN 37181-39-8
CMF C F3 O3 S



RN 463966-41-8 HCAPLUS
CN 1-Butanaminium, N-butyl-N-[4-[5-[4-(dibutylamino)phenyl]-1,5-bis[4-[(4-methoxyphenyl)phenylamino]phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

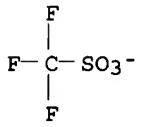
CM 1

CRN 463966-40-7
CMF C71 H79 N4 O2



CM 2

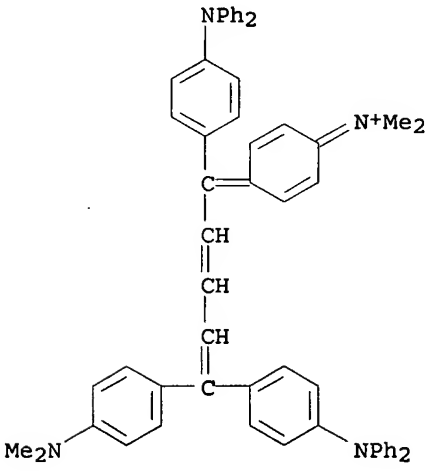
CRN 37181-39-8
CMF C F3 O3 S



RN 463966-43-0 HCAPLUS
CN Methanaminium, N-[4-[5-[4-(dimethylamino)phenyl]-1,5-bis[4-(diphenylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

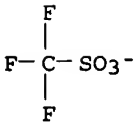
CM 1

CRN 463966-42-9
CMF C57 H51 N4



CM 2

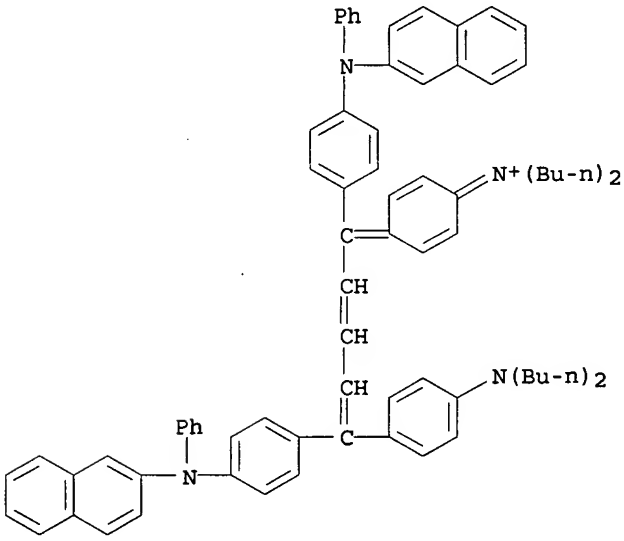
CRN 37181-39-8
CMF C F3 O3 S



RN 517891-87-1 HCAPLUS
CN 1-Butanaminium, N-butyl-N-[4-[5-[4-(dibutylamino)phenyl]-1,5-bis[4-(2-naphthalenylphenylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

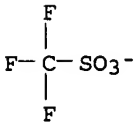
CM 1

CRN 517891-86-0
CMF C77 H79 N4



CM 2

CRN 37181-39-8
CMF C F3 O3 S



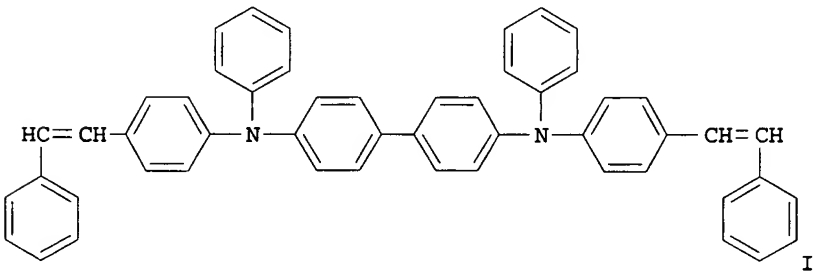
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 38
IT 100237-71-6 134672-08-5 463966-35-0 **463966-37-2** **463966-41-8** **463966-43-0** **517891-87-1**
RL: MOA (Modifier or additive use); TEM (Technical or engineered

material use); USES (Uses)
(IR absorber; photosensitive lithog. printing plates having Al supports with specific boehmite protrusions)

L74 ANSWER 2 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1129774 HCAPLUS
DOCUMENT NUMBER: 143:413455
TITLE: Electrophotographic photoreceptor containing arylamine compound, image formation apparatus, process cartridge, and synthesis of the arylamine compound
INVENTOR(S): Mitsumori, Mitsuyuki
PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005292810	A2	20051020	JP 2005-57843	2005 0302
PRIORITY APPLN. INFO.:			JP 2004-64795 A	2004 0308

GI

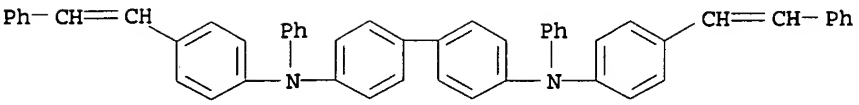


I

AB The invention relates to an electrophotog. photoreceptor which contains an arylamine compound represented by I (EE isomer = 70-100 %; EZ isomer = 0-20 %; ZZ isomer = 0-10) as a charge transport material in a light-sensitive layer to improve electrophotog. properties. The light-sensitive layer contains a phthalocyanine compound with ≤0.6 % Cl. The arylamine compound is prepared using a **Pd catalyst** and purified using activated clays.

IT **229479-60-1P**
RL: DEV (Device component use); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of charge transport arylamine compound for electrophotog. photoreceptor showing improved electrophotog. properties)

RN 229479-60-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-diphenyl-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



IC ICM G03G005-06
ICS C07C209-84; C07C211-54
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST electrophotog photoreceptor **photoconductor** charge transport arylamine compd synthesis
IT Electrophotographic apparatus
Electrophotographic **photoconductors** (photoreceptors)
(electrophotog. photoreceptor containing charge transport arylamine compound, image formation apparatus, process cartridge, and synthesis of arylamine compound)
IT **229479-60-1P**
RL: DEV (Device component use); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation of charge transport arylamine compound for electrophotog. photoreceptor showing improved electrophotog. properties)

L74 ANSWER 3 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1103292 HCAPLUS
DOCUMENT NUMBER: 143:397507
TITLE: Triarylamine compounds, compositions and uses therefor
INVENTOR(S): Smith, Eric Maurice; Radu, Nora Sabina; Herron, Norman; Dabrowski, Arthur; Gentry, Frederick P.; Rossi, Gene M.; Johansson, Gary A.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005227465	A1	20051013	US 2005-93455	2005 0330
WO 2005099312	A2	20051020	WO 2005-US10852	2005 0330
WO 2005099312	A3	20060302		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-557964P P 2004 0331

OTHER SOURCE(S): MARPAT 143:397507

AB The present invention relates to triarylamine compds., compns. comprising such compds., and **electronic devices** and applications comprising ≥1 layer containing ≥1 of the new compds. The compds. can be used as monomers to create homopolymers or copolymers.

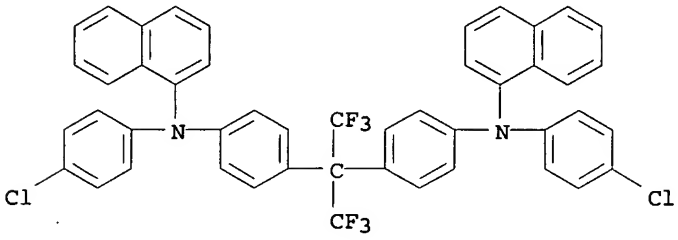
IT **863133-52-2P**
RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(homopolymer; triarylamine compds., compns. and uses therefor)

RN 863133-52-2 HCAPLUS

CN 1-Naphthalenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(4-chlorophenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 863133-51-1
CMF C47 H30 Cl2 F6 N2

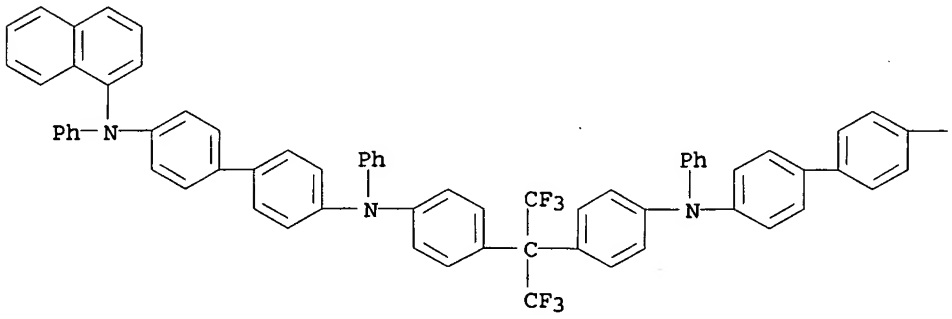


IT **863133-54-4DP**, dimer derivs.
RL: PNU (Preparation, unclassified); PREP (Preparation)
(triarylamine compds., compns. and uses therefor)

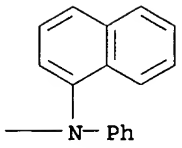
RN 863133-54-4 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N''-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N'-1-naphthalenyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

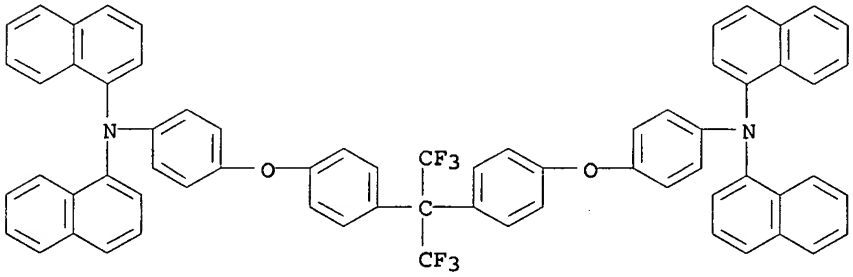
PAGE 1-A



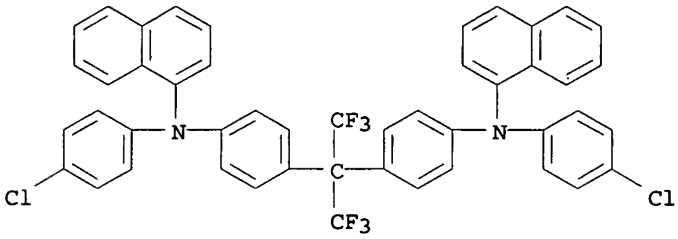
PAGE 1-B



IT **863133-55-5DP**, dimer derivs.
RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(triarylamine compds., compns. and uses therefor)
RN 863133-55-5 HCAPLUS
CN 1-Naphthalenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis(4,1-phenyleneoxy-4,1-phenylene)]bis[N-1-naphthalenyl- (9CI) (CA INDEX NAME)

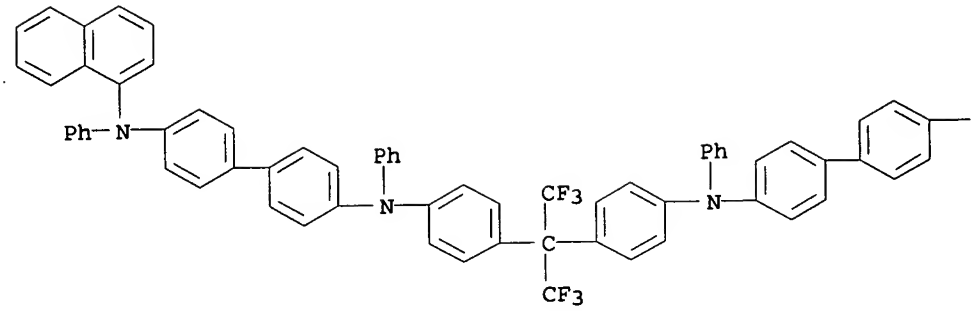


IT **863133-51-1P**
RL: PNU (Preparation, unclassified); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(triarylamine compds., compns. and uses therefor)
RN 863133-51-1 HCAPLUS
CN 1-Naphthalenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(4-chlorophenyl)- (9CI) (CA INDEX NAME)



IT **863133-54-4P 863133-55-5P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(triarylamine compds., compns. and uses therefor)
RN 863133-54-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N''-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N'-1-naphthalenyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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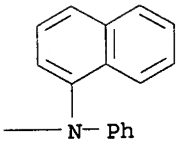
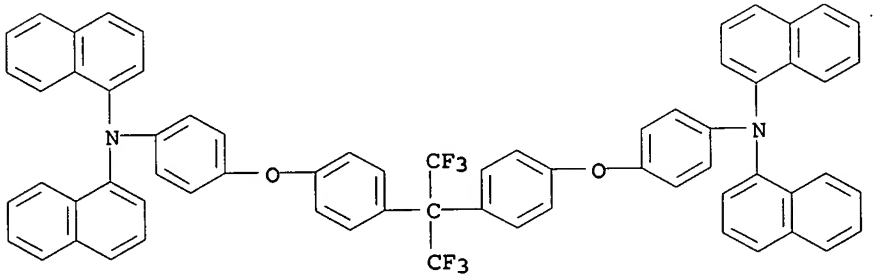


RN 863133-55-5 HCAPLUS
CN 1-Naphthalenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis(4,1-phenyleneoxy-4,1-phenylene)]bis[N-1-naphthalenyl- (9CI) (CA INDEX NAME)



IC ICM H01L021-28
ICS H01L021-44
INCL 438579000
CC 76-3 (Electric Phenomena)
Section cross-reference(s): 38
ST triarylamine compd charge transport carrier **electronic device**
IT **863133-52-2P**
RL: PNU (Preparation, unclassified); PRP (Properties); PREP (Preparation)
(homopolymer; triarylamine compds., compns. and uses therefor)
IT **863133-54-4DP**, dimer derivs.
RL: PNU (Preparation, unclassified); PREP (Preparation)
(triarylamine compds., compns. and uses therefor)
IT 4316-58-9P, Tri(p-bromophenyl)amine 139092-78-7P 192198-85-9P, TPBI 224311-51-7P, Di(tert-butyl)-o-biphenylphosphine **863133-55-5DP**, dimer derivs. 866790-11-6P, 2,2-Bis(4-Bromophenyl)hexafluoroisopropylidene-N,N-Diphenylbenzidine copolymer
RL: PNU (Preparation, unclassified); PRP (Properties); PREP

(Preparation)
(triarylamine compds., compns. and uses therefor)
IT 352359-41-2P **863133-51-1P** 866790-12-7P
RL: PNU (Preparation, unclassified); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(triarylamine compds., compns. and uses therefor)
IT 90-14-2P, 1-Iodonaphthalene 637-87-6P, 1-Chloro-4-iodobenzene
863133-50-0P **863133-54-4P 863133-55-5P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(triarylamine compds., compns. and uses therefor)

L74 ANSWER 4 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:904401 HCAPLUS
DOCUMENT NUMBER: 143:257132
TITLE: Compositions comprising novel compounds for **electronic devices**
INVENTOR(S): Herron, Norman; Johansson, Gary A.; Radu, Nora Sabina; Smith, Eric Maurice; Dabrowski, Arthur; Gentry, Frederick P.; Rossi, Gene M.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 23 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005187411	A1	20050825	US 2004-782357	2004 0219
WO 2005080525	A2	20050901	WO 2005-US5579	2005 0217

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

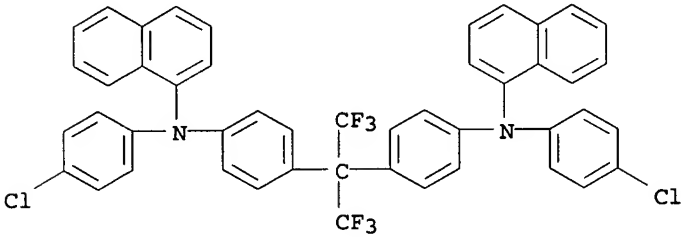
PRIORITY APPLN. INFO.: US 2004-782357 A 2004 0219

AB The present invention relates to novel compds. and compns. comprising novel oligomers and polymers, and **electronic device** comprising at least one layer containing the compns. The novel oligomers and polymers can be solubilized, and can be used in solution to form **electronic devices.** The compds. can function as monomers, and copolymers can be formed from such monomers, such copolymers comprising, as polymerized units, a plurality of units of the compds.
IT **863133-52-2P 863133-54-4P 863133-55-5P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of charge transport material for **electronic devices**)

RN 863133-52-2 HCAPLUS
CN 1-Naphthalenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(4-chlorophenyl)-, homopolymer (9CI) (CA INDEX NAME)

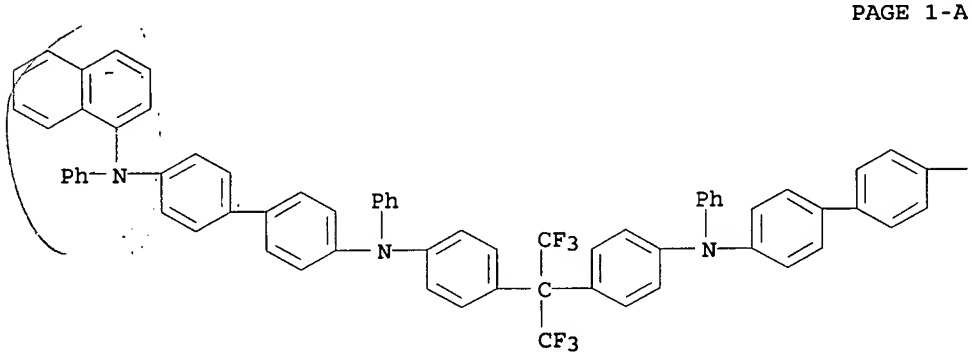
CM 1

CRN 863133-51-1
CMF C47 H30 Cl2 F6 N2

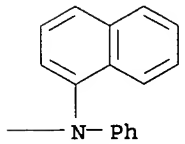


RN 863133-54-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N''-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N'-1-naphthalenyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

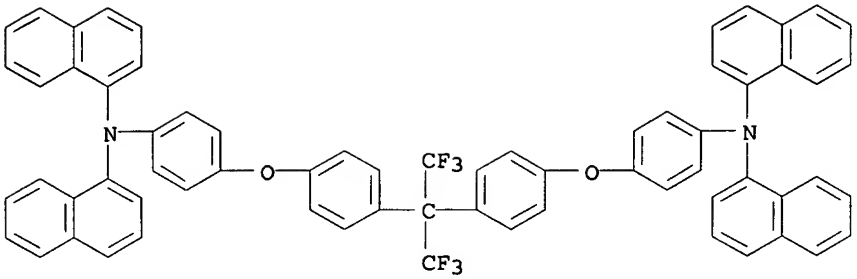
PAGE 1-A



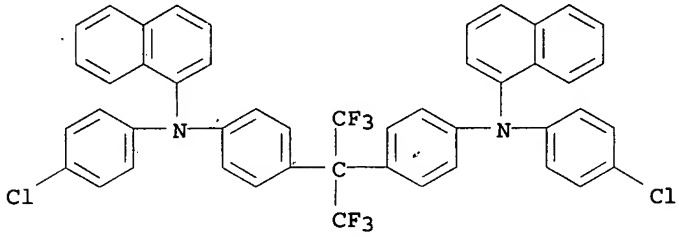
PAGE 1-B



RN 863133-55-5 HCAPLUS
CN 1-Naphthalenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis(4,1-phenyleneoxy-4,1-phenylene)]bis[N-1-naphthalenyl- (9CI) (CA INDEX NAME)



IT **863133-51-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of charge transport material for **electronic devices**)
RN 863133-51-1 HCAPLUS
CN 1-Naphthalenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(4-chlorophenyl)- (9CI) (CA INDEX NAME)



IC ICM H01B001-12
ICS C08G073-02; C07C211-54
INCL 564305000; 564433000; 564434000; 257040000; 528422000; 313504000; 313506000; 428917000
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 35, 38
ST **light emitting diode**
electronic device charge transport material
IT Electroluminescent devices
(charge transport material for **electronic devices**)
IT **863133-52-2P** 863133-53-3P **863133-54-4P**
863133-55-5P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of charge transport material for **electronic devices**)
IT 90-14-2, 1-Iodonaphthalene 637-87-6, 1-Chloro-4-iodobenzene 1095-78-9, 4,4'-(Hexafluoroisopropylidene)dianiline 352359-41-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of charge transport material for **electronic devices**)
IT 863133-50-0P **863133-51-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of charge transport material for **electronic devices**)

L74 ANSWER 5 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:693800 HCAPLUS
DOCUMENT NUMBER: 143:163053
TITLE: Electrophotographic photoreceptors with good crack resistance, process cartridges, and electrophotographic apparatus
INVENTOR(S): Ishizuka, Yuka; Tanaka, Takakazu; Ogaki, Harunobu; Kako, Kenichi
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

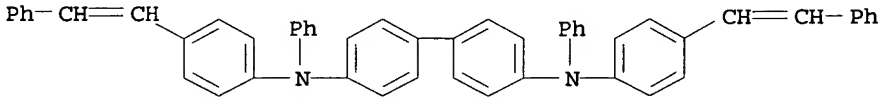
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005208110	A2	20050804	JP 2004-11684	2004 0120

PRIORITY APPLN. INFO.: JP 2004-11684 2004 0120

AB The photoreceptors have photosensitive layers containing binder polymers, (A) charge transport materials with mol. weight 300-700, and (B) charge transport materials with mol. weight 1500-4000 having specific aromatic polyamine structures on supports. The electrophotog. apparatus gives stable high-quality images.

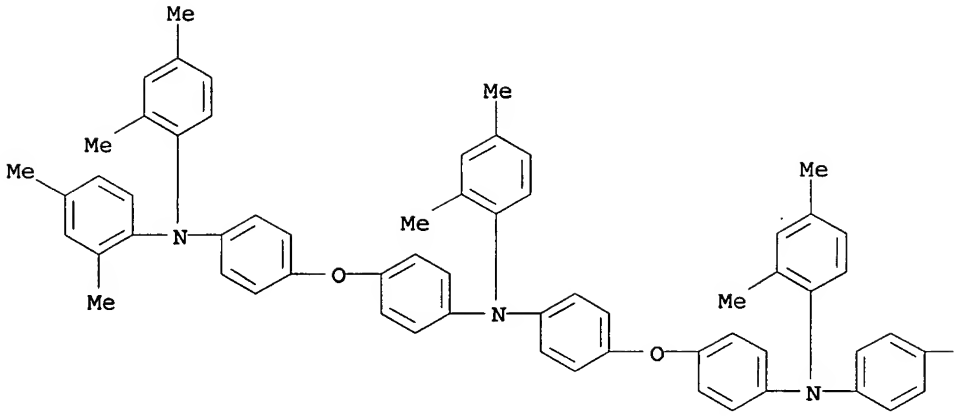
IT **229479-60-1 666176-07-4 666176-08-5 860309-99-5 860310-00-5**
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptors with good crack resistance)

RN 229479-60-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-diphenyl-N,N'-bis[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)



RN 666176-07-4 HCAPLUS
CN Benzenamine, 4,4'-oxybis[N-[4-[4-[[4-[4-[bis(2,4-dimethylphenyl)amino]phenoxy]phenyl](2,4-dimethylphenyl)amino]phenoxy]phenyl]-N-(2,4-dimethylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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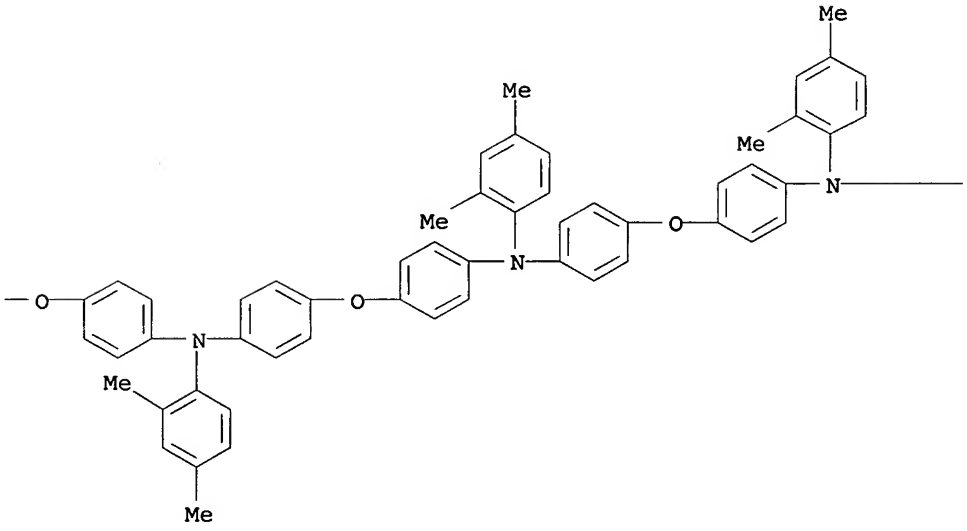

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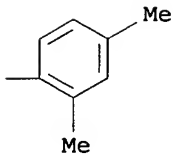
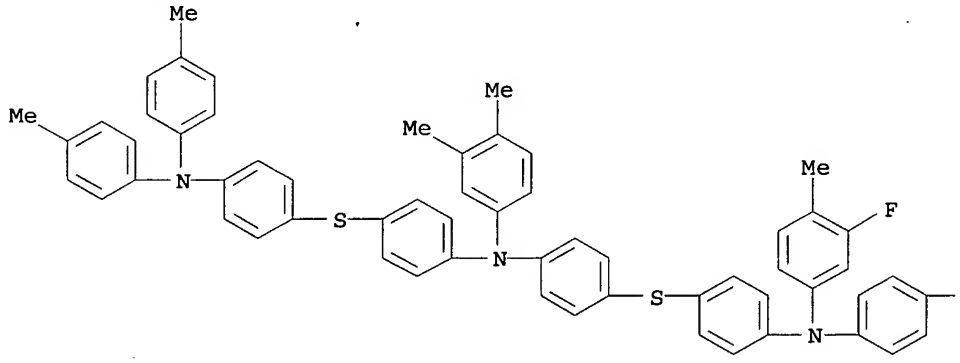


RN 666176-08-5 HCAPLUS
CN Benzenamine, 4,4'-thiobis[N-[4-[[4-[[4-[[4-[bis(4-methylphenyl)amino]phenyl]thio]phenyl](3,4-dimethylphenyl)amino]phenyl]thio]phenyl]-N-(3-fluoro-4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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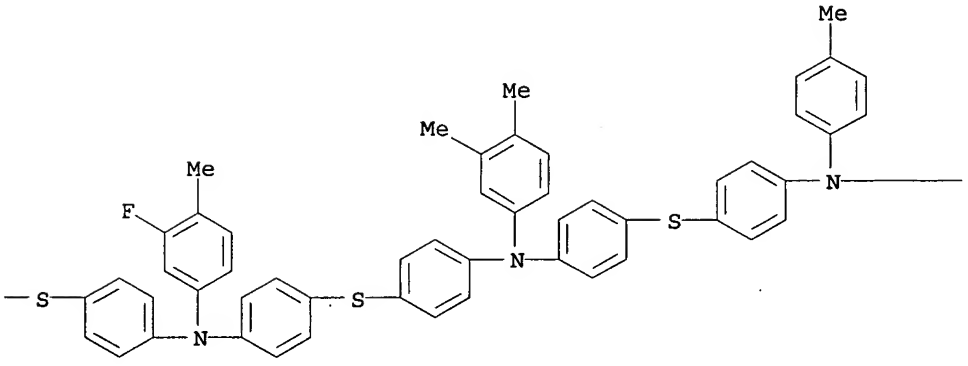

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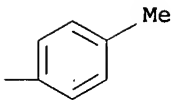
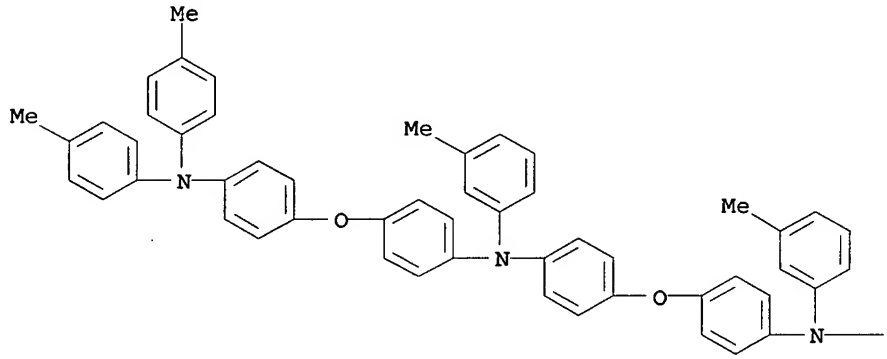


RN 860309-99-5 HCAPLUS
CN 9H-Fluorene-3,6-diamine, N,N'-bis[4-[4-[[4-[4-[bis(4-methylphenyl)amino]phenoxy]phenyl](3-methylphenyl)amino]phenoxy]phenyl]-9,9-dimethyl-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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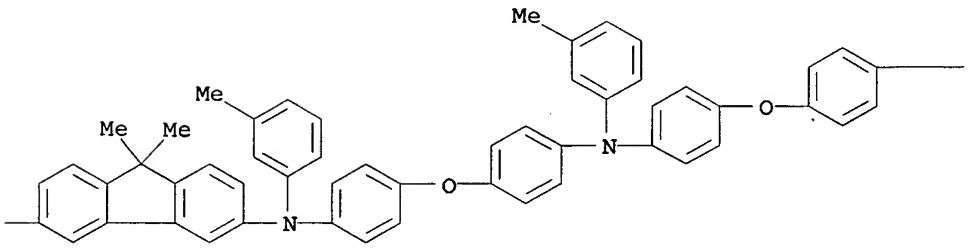

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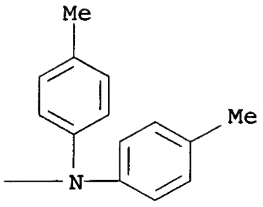
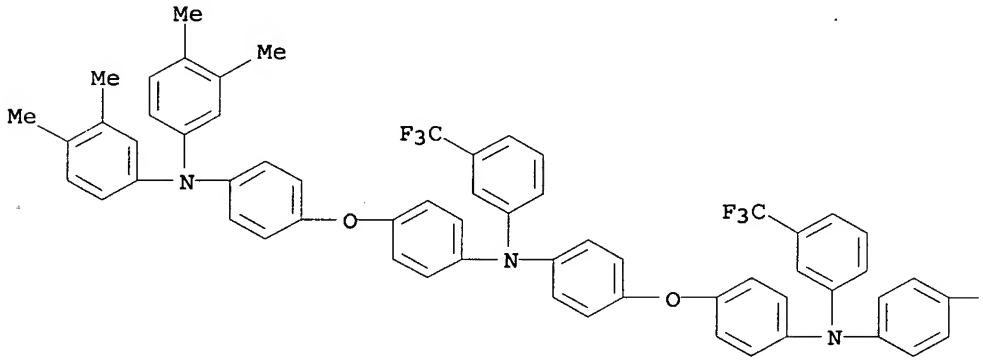


RN 860310-00-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[4-[[4-[4-[bis(3,4-dimethylphenyl)amino]phenoxy]phenyl][3-(trifluoromethyl)phenyl]amino]phenoxy]phenyl]-N,N'-bis[3-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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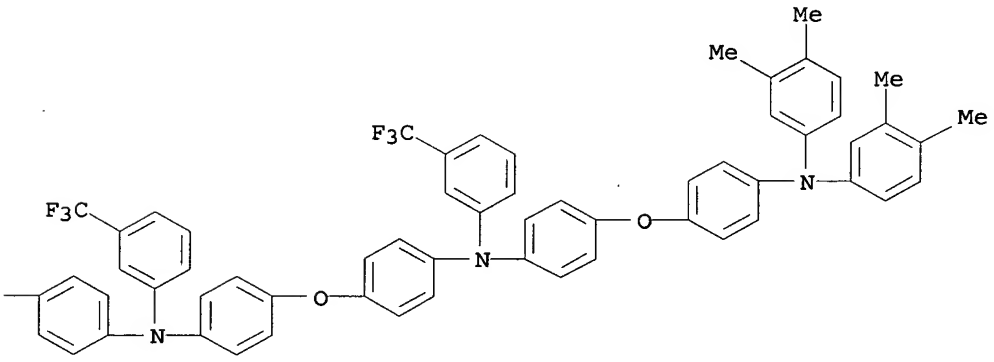


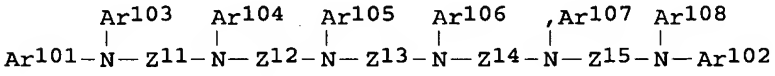
IC ICM G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 27, 38
IT Electrophotographic apparatus
Electrophotographic **photoconductors** (photoreceptors)
(electrophotog. photoreceptors with good crack resistance)
IT 58473-78-2 65181-78-4 68189-23-1 83992-95-4 89114-90-9

89114-91-0 89505-08-8 95905-90-1 95993-52-5 115655-09-9
119344-14-8 127446-78-0 131625-67-7 132571-92-7
143886-11-7 148077-51-4 151028-56-7 159322-33-5
161114-54-1 161114-55-2 168198-19-4 **229479-60-1**
620616-66-2 666175-94-6 666175-95-7 666175-96-8
666175-97-9 666175-99-1 666176-00-7 666176-01-8
666176-06-3 **666176-07-4 666176-08-5**
854512-48-4 860309-91-7 860309-92-8 860309-93-9
860309-94-0 860309-95-1 860309-96-2 860309-97-3
860309-98-4 **860309-99-5 860310-00-5**
860310-01-6 860310-02-7 860310-03-8 860310-04-9
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptors with good crack resistance)

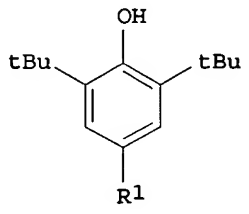
L74 ANSWER 6 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:546056 HCAPLUS
DOCUMENT NUMBER: 143:86619
TITLE: Electrophotographic photoreceptor using polyamine charge-transporting agent, process cartridge, and apparatus
INVENTOR(S): Kako, Kenichi; Tanaka, Takakazu; Ogaki, Harunobu; Ishizuka, Yuka
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005164663	A2	20050623	JP 2003-399889	2003 1128
PRIORITY APPLN. INFO.:			JP 2003-399889	2003 1128

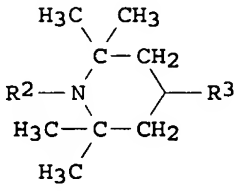
OTHER SOURCE(S): MARPAT 143:86619
GI



I



II



III

AB In the photoreceptor comprising a support with photosensitive

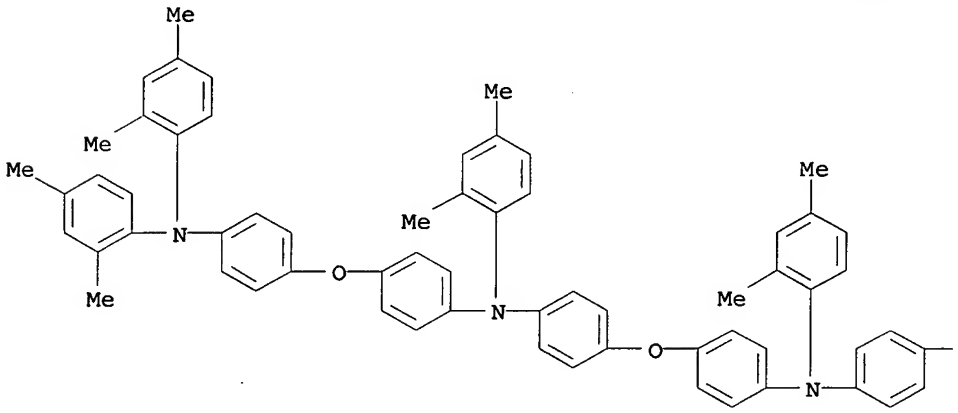
layer, the charge-transporting layer contains (1) ≥1 charge-transporting agent Ar1(NAr2Z1)nNAr3Ar4 (n = 5-9; Ar1-4 = monovalent aromatic hydrocarbyl or heterocycle; Z1 = divalent aromatic hydrocarbylene or heterocycle; Ar2s and Z1s may be different), in which the ratio of I with mol. weight 1500-4000 is 90-100 weight% (of total charge-transporting agent) and (2) II and/or III (R1-3 = alkyl, alkoxy, OH, ester, amino, cycloalkyl) as additives at (total weight of II and III)/(total wt.of charge-transporting agents) = 0.05-0.20 (weight ratio). The photoreceptor shows good abrasion resistance, less photomemory and stability in repeated use.

IT **666176-07-4 666176-08-5**
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor with charge-transporting layer containing polyamine and dibutylphenol and/or piperidine additives)

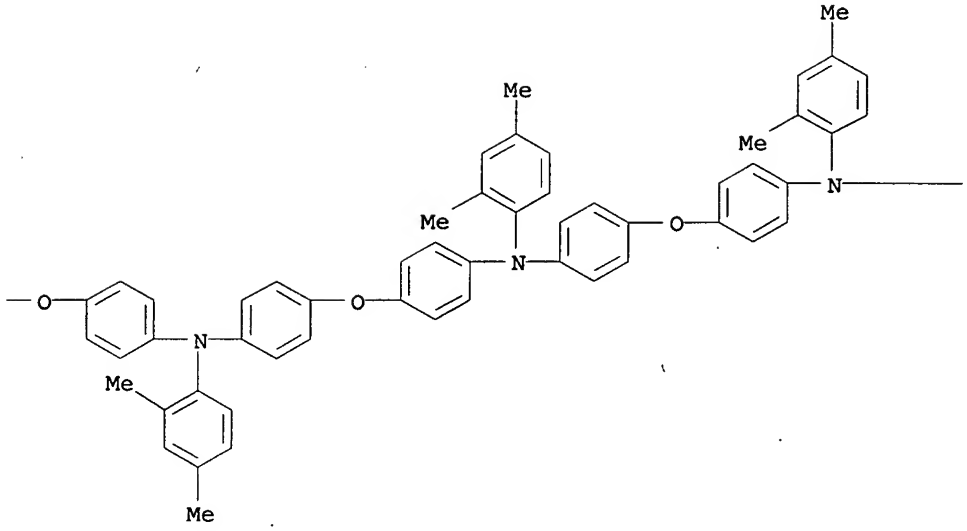
RN 666176-07-4 HCAPLUS

CN Benzenamine, 4,4'-oxybis[N-[4-[4-[[4-[4-[bis(2,4-dimethylphenyl)amino]phenoxy]phenyl](2,4-dimethylphenyl)amino]phenoxy]phenyl]-N-(2,4-dimethylphenyl)- (9CI) (CA INDEX NAME)

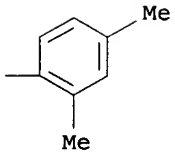
PAGE 1-A



PAGE 1-B

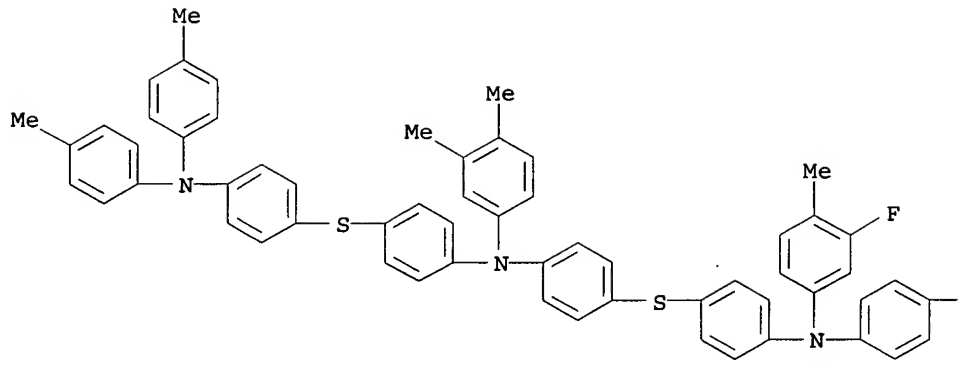


PAGE 1-C

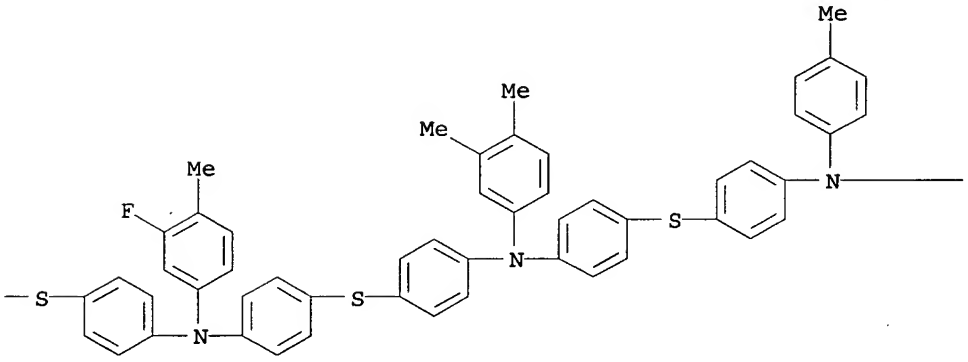


RN 666176-08-5 HCAPLUS
CN Benzenamine, 4,4'-thiobis[N-[4-[[4-[[4-[[4-[bis(4-methylphenyl)amino]phenyl]thio]phenyl](3,4-dimethylphenyl)amino]phenyl]thio]phenyl]-N-(3-fluoro-4-methylphenyl)- (9CI) (CA INDEX NAME)

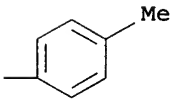
PAGE 1-A



PAGE 1-B



PAGE 1-C



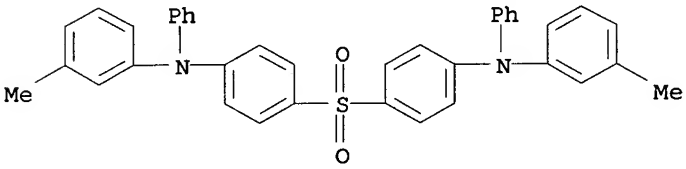
IC ICM G03G005-07
ICS G03G005-05
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors** (photoreceptors)
(electrophotog. photoreceptor with charge-transporting layer containing polyamine and dibutylphenol and/or piperidine additives)
IT 666175-97-9 666176-06-3 **666176-07-4**
666176-08-5 854512-39-3 854512-40-6 854512-41-7
854512-42-8 854512-43-9 854512-44-0 854512-45-1
854512-46-2 854512-47-3 854512-48-4 854512-49-5
854512-50-8 854512-51-9 854512-52-0 854512-53-1
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor with charge-transporting layer

containing polyamine and dibutylphenol and/or piperidine additives)

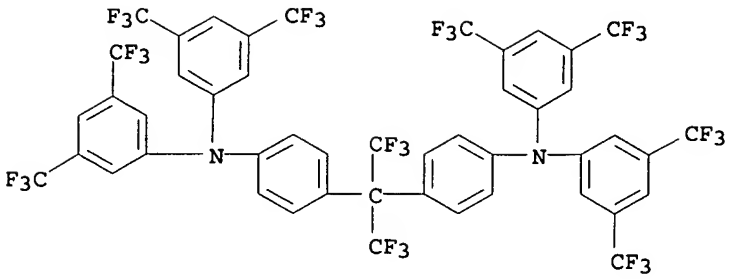
L74 ANSWER 7 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:138480 HCAPLUS
DOCUMENT NUMBER: 142:249440
TITLE: Organic electroluminescent elements with improved brightness, emission efficiency, and durability and lighting apparatus and displays using them
INVENTOR(S): Oshiyama, Tomohiro; Kato, Eisaku; Suzurizato, Yoshiyuki; Kita, Hiroshi
PATENT ASSIGNEE(S): Konica Minolta Holdings, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 57 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005044791	A2	20050217	JP 2004-195397	20040701
PRIORITY APPLN. INFO.:			JP 2003-193520 A	20030708

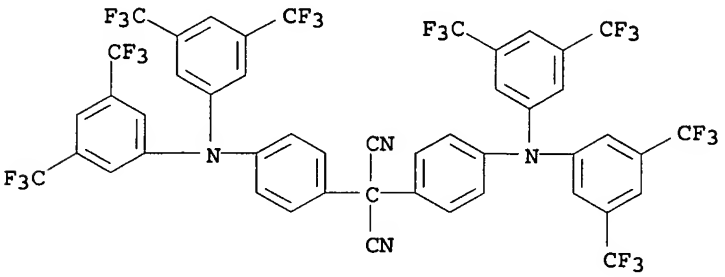
OTHER SOURCE(S): MARPAT 142:249440
AB The elements, useful for blue- or white-emitting backlights for LCD, have layers containing triarylamine derivs. bearing electron-withdrawing groups adjacent to light-emitting layers between anodes and cathodes. The layers show good hole-barrier properties.
IT **152842-19-8 817638-43-0 817638-44-1 844665-56-1**
RL: DEV (Device component use); USES (Uses)
(hole-barrier layer; organic EL elements containing electron-withdrawing triarylamines in hole-barrier layers for displays with good brightness, emission efficiency, and durability)
RN 152842-19-8 HCAPLUS
CN Benzenamine, 4,4'-sulfonylbis[N-(3-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)



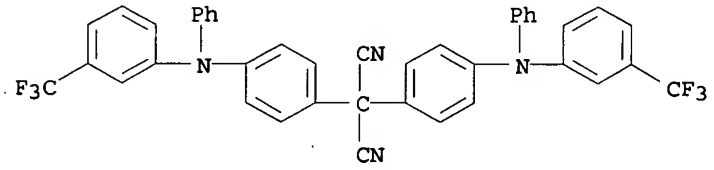
RN 817638-43-0 HCAPLUS
CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N,N-bis[3,5-bis(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



RN 817638-44-1 HCAPLUS
CN Propanedinitrile, bis[4-[bis[3,5-bis(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



RN 844665-56-1 HCAPLUS
CN Propanedinitrile, bis[4-[phenyl[3-(trifluoromethyl)phenyl]amino]phenyl]- (9CI) (CA INDEX NAME)



IC ICM H05B033-22
ICS C07C211-56; C09K011-06; H05B033-14
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 73
IT 1821-41-6 **152842-19-8 817638-43-0**
817638-44-1 817638-51-0 844665-51-6 844665-52-7
844665-53-8 844665-54-9 844665-55-0 **844665-56-1**
844665-57-2 844665-58-3 844665-59-4
RL: DEV (Device component use); USES (Uses)
(hole-barrier layer; organic EL elements containing electron-withdrawing triarylamines in hole-barrier layers for displays with good brightness, emission efficiency, and durability)

L74 ANSWER 8 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:842733 HCAPLUS
DOCUMENT NUMBER: 141:340140
TITLE: Organic **electroluminescent** devices having smooth and uniform bonding interface

and their manufacture
INVENTOR(S): Nishida, Nobuhiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004288441	A2	20041014	JP 2003-77919	2003 0320

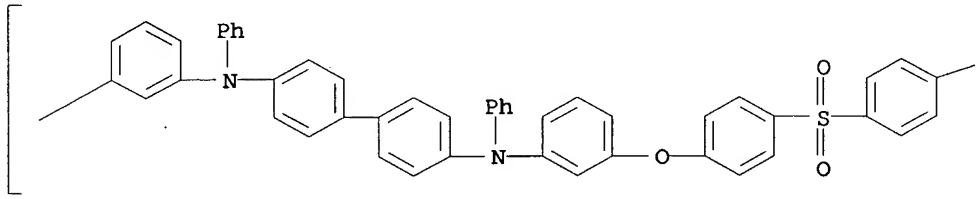
PRIORITY APPLN. INFO.: JP 2003-77919 2003 0320

AB Transfers possessing organic **layer** A (**e.g.**, **electron-transport layers**, emitting **layers**, and/or **hole-transport layers**) are laminated with substrates forming cathodes, electron-injecting layers, and other functional layers with their constituent layers inside and hot pressed to transfer A on the substrates. The electron-injecting layers contain organic metal salts or organometallic complexes. After the transfer stage, anodes (on counter substrates) are bonded to the exposed surface of A by lamination.

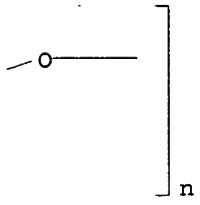
IT **220930-43-8**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(**hole-transport layers**; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)

RN 220930-43-8 HCAPLUS
CN Poly[oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,3-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,3-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM H05B033-10
ICS H05B033-14; H05B033-22
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 76
ST **electroluminescent** device bonding interface defect prevention; transfer laminated emitting layer org **LED**; lithium complex electron injection **LED** interlayer adhesion
IT Organometallic compounds
RL: DEV (Device component use); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(electron-injecting layers; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT Polyvinyl butyrals
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(**electron-transport layers**; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT **Electroluminescent** devices
Lamination
Semiconductor heterojunctions
(manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT Alkali metal salts
Alkaline earth salts
Salts, uses
RL: DEV (Device component use); MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(organic, electron-injecting layers; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT Polysulfones, uses
RL: NUU (Other use, unclassified); USES (Uses)
(polyether-, transfer supports; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT Polyethers, uses
RL: NUU (Other use, unclassified); USES (Uses)
(polysulfone-, transfer supports; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT Polyimides, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(substrates; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT 50926-11-9, Indium tin oxide
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(anodes; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT 29319-22-0
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(assumed monomers, substrates; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)

IT 7429-90-5, Aluminum, uses
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(cathodes; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT 771586-87-9
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(electron-injecting layers; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT 358974-66-0
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(**electron-transport layers**; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT 25067-59-8, Poly(vinyl carbazole) 94928-86-6, Tris(2-phenylpyridine)iridium
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(emitting layers; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT 24964-91-8, Tris(p-bromophenyl)ammonium hexachloroantimonate **220930-43-8**
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(**hole-transport layers**; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)
IT 32197-39-0, Upilex 50S
RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process); USES (Uses)
(substrates; manufacture of organic **LED** having smooth and uniform bonding interface by process with less stage number)

L74 ANSWER 9 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:802182 HCAPLUS
DOCUMENT NUMBER: 141:322678
TITLE: Organic electroluminescent element, illuminator, and display
INVENTOR(S): Suzuri, Yoshiyuki; Kita, Hiroshi; Oshiyama, Tomohiro; Fukuda, Mitsuhiro; Ueda, Noriko
PATENT ASSIGNEE(S): Japan
SOURCE: U.S. Pat. Appl. Publ., 63 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004189190	A1	20040930	US 2004-804788	2004 0319
EP 1464691	A2	20041006	EP 2004-6649	2004 0319

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK

JP 2004311424 A2 20041104 JP 2004-84609 2004 0323

PRIORITY APPLN. INFO.: JP 2003-85023 A 2003 0326

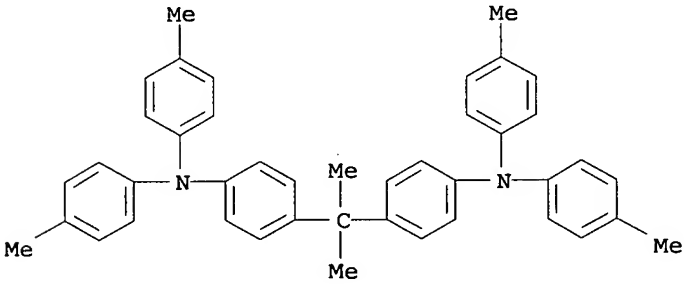
OTHER SOURCE(S): MARPAT 141:322678

AB Disclosed are an organic electroluminescent element comprising a light emission layer containing a phosphorescent compound and a hole transporting layer adjacent thereto containing a hole transporting material, wherein the hole transporting material has a 0-0 band of the phosphorescence spectra of from 300 to 450 nm and has a mol. weight of not less than 550, and an illuminator and a display each comprising the organic electroluminescent element.

IT **61526-94-1 149685-52-9**
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent element containing phosphorescent compound and hole-transporting compound)

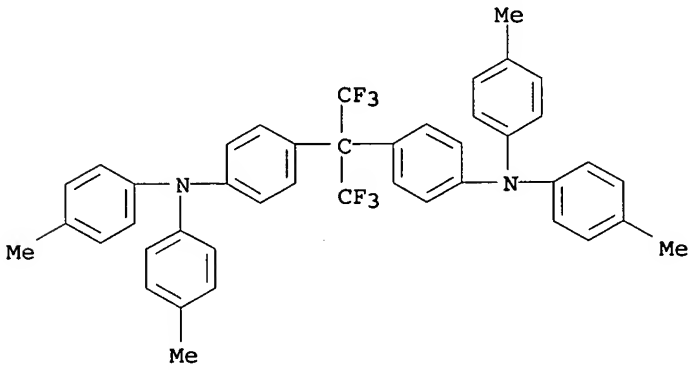
RN 61526-94-1 HCAPLUS

CN Benzenamine, 4,4'-(1-methylethylidene)bis[N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 149685-52-9 HCAPLUS

CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



IC ICM H05B033-14
ICS F21V009-16

INCL 313504000

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)

IT 2085-33-8, Alq3 4733-39-5 58328-31-7 58473-78-2
61526-94-1 123847-85-8 **149685-52-9**
178331-01-6 263722-47-0 405171-87-1 612519-55-8
693794-98-8 765943-77-9 765943-79-1 765943-81-5
765943-83-7 765943-85-9 765943-87-1 765943-89-3
765943-90-6
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent element containing phosphorescent compound and hole-transporting compound)

L74 ANSWER 10 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:530380 HCAPLUS
DOCUMENT NUMBER: 141:96344
TITLE: Organic electroluminescent device for displays and illumination source and its production method
INVENTOR(S): Kita, Hiroshi; Yamada, Taketoshi; Suzurizato, Yoshiyuki; Ueda, Noriko
PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 65 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

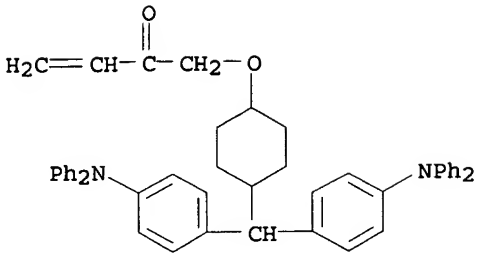
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004185967	A2	20040702	JP 2002-351157	2002 1203

PRIORITY APPLN. INFO.: JP 2002-351157 2002 1203

AB The invention relates to an organic electroluminescent device comprising a light-emitting layer containing a phosphorescent dopant and a multifunctioning polymer, wherein, at least, the two of functional mol. units selected from a luminescent host unit, a hole transporting unit, and an electron transporting unit constitute the multifunctioning polymer.
IT **714976-05-3 714976-21-3 714976-27-9**
714976-35-9 714976-36-0 714976-38-2
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device having phosphorescent dopant and multifunctioning polymer in light emitting layer)
RN 714976-05-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 4-[bis[4-(9H-carbazol-9-yl)phenyl]methyl]-1-methylcyclohexyl ester, polymer with 1-[[4-[bis[4-(diphenylamino)phenyl]methyl]cyclohexyl]oxy]-3-buten-2-one (9CI) (CA INDEX NAME)

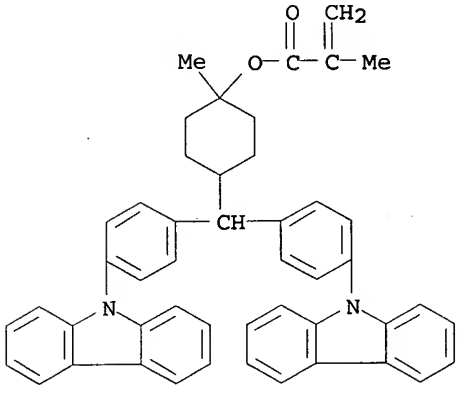
CM 1

CRN 714976-04-2
CMF C47 H44 N2 O2



CM 2

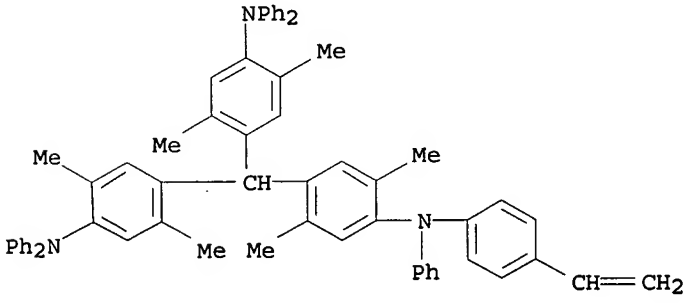
CRN 714976-03-1
CMF C48 H42 N2 O2



RN 714976-21-3 HCAPLUS
CN Benzenamine, 4,4'-[[4-[(4-ethenylphenyl)phenylamino]-2,5-dimethylphenyl]methylene]bis[2,5-dimethyl-N,N-diphenyl-, polymer with 3,5-bis(2,5-dimethylphenyl)-4-(4-ethenylphenyl)-4H-1,2,4-triazole and 9-(4-ethenylphenyl)-3,6-bis(2,4,6-trimethylphenyl)-9H-carbazole (9CI) (CA INDEX NAME)

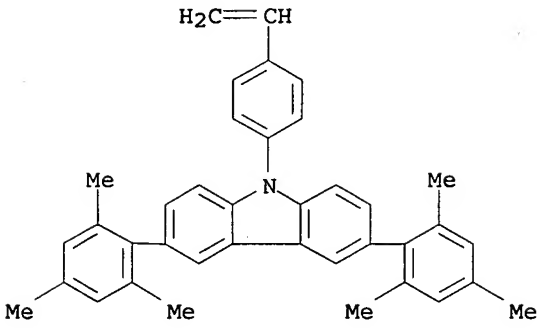
CM 1

CRN 714976-20-2
CMF C63 H57 N3



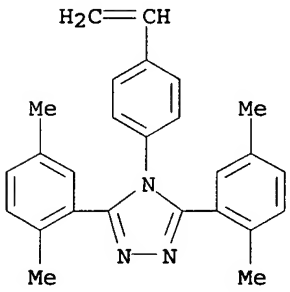
CM 2

CRN 714976-19-9
CMF C38 H35 N



CM 3

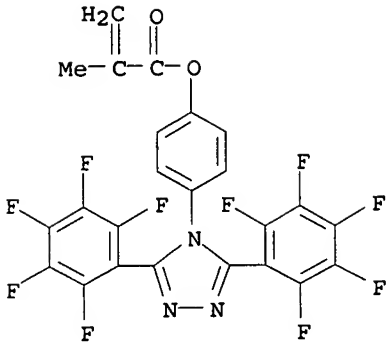
CRN 714976-14-4
CMF C26 H25 N3



RN 714976-27-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 4-[bis[4-(9H-carbazol-9-yl)phenyl]methyl]-1-methylcyclohexyl ester, polymer with 1-[[4-[bis[4-(diphenylamino)phenyl]methyl]cyclohexyl]oxy]-3-buten-2-one and 4-[3,5-bis(pentafluorophenyl)-4H-1,2,4-triazol-4-yl]phenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

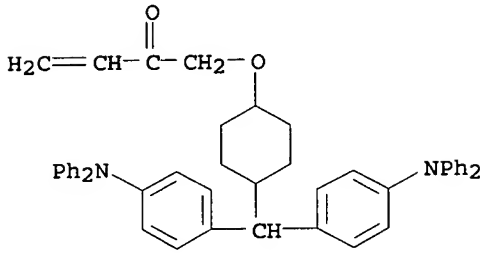
CM 1

CRN 714976-26-8
CMF C24 H9 F10 N3 O2



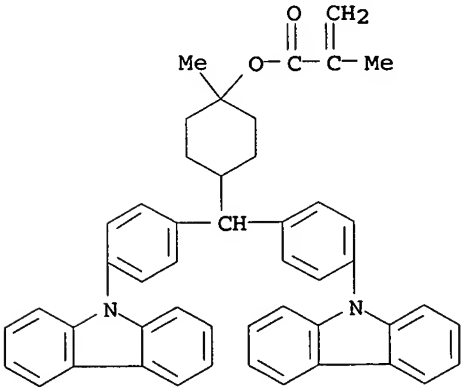
CM 2

CRN 714976-04-2
CMF C47 H44 N2 O2



CM 3

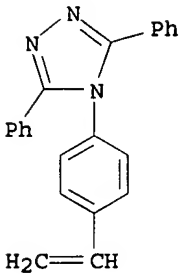
CRN 714976-03-1
CMF C48 H42 N2 O2



RN 714976-35-9 HCAPLUS
CN 3-Buten-2-one, 1-[[4-[bis[4-(diphenylamino)phenyl]methyl]cyclohexyl]oxy]-, polymer with 4-(4-ethenylphenyl)-3,5-diphenyl-4H-1,2,4-triazole and 9-(11-ethenyltricyclo[8.2.2.24,7]hexadeca-4,6,10,12,13,15-hexaen-5-yl)-9H-carbazole (9CI) (CA INDEX NAME)

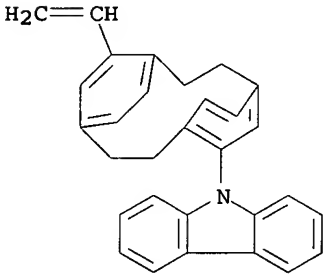
CM 1

CRN 714976-34-8
CMF C22 H17 N3



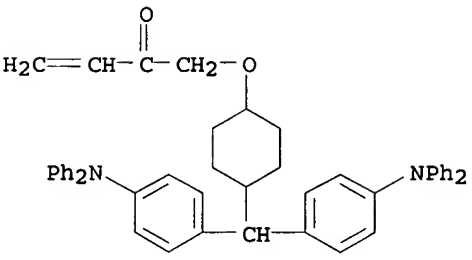
CM 2

CRN 714976-15-5
CMF C30 H25 N



CM 3

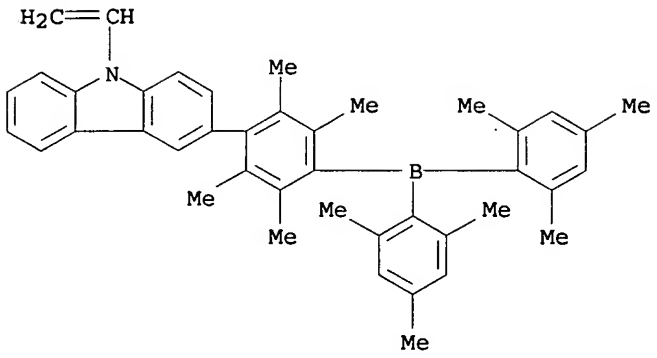
CRN 714976-04-2
CMF C47 H44 N2 O2



RN 714976-36-0 HCAPLUS
CN Benzenamine, 4,4'-[[4-[(4-ethenylphenyl)phenylamino]-2,5-dimethylphenyl]methylene]bis[2,5-dimethyl-N,N-diphenyl-, polymer with 3,5-bis(2,5-dimethylphenyl)-4-(4-ethenylphenyl)-4H-1,2,4-triazole and 3-[4-[bis(2,4,6-trimethylphenyl)boryl]-2,3,5,6-tetramethylphenyl]-9-ethenyl-9H-carbazole (9CI) (CA INDEX NAME)

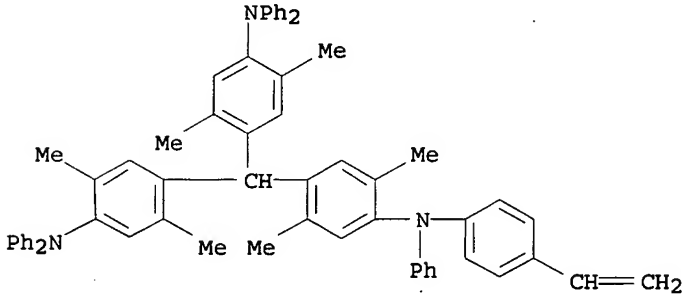
CM 1

CRN 714976-32-6
CMF C42 H44 B N



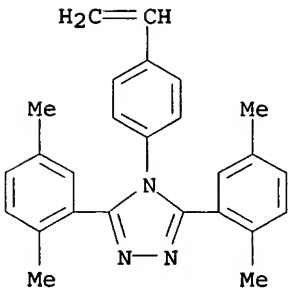
CM 2

CRN 714976-20-2
CMF C63 H57 N3



CM 3

CRN 714976-14-4
CMF C26 H25 N3

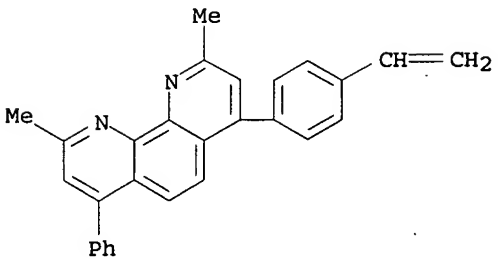


RN 714976-38-2 HCAPLUS
CN Benzenamine, 4,4'-[[4-[(4-ethenylphenyl)phenylamino]-2,5-dimethylphenyl]methylene]bis[2,5-dimethyl-N,N-diphenyl-, polymer with 9-[4'-(9H-carbazol-9-yl)-2,2'-dimethyl[1,1'-biphenyl]-4-yl]-3-ethenyl-9H-carbazole and 4-(4-ethenylphenyl)-2,9-dimethyl-7-phenyl-

1,10-phenanthroline (9CI) (CA INDEX NAME)

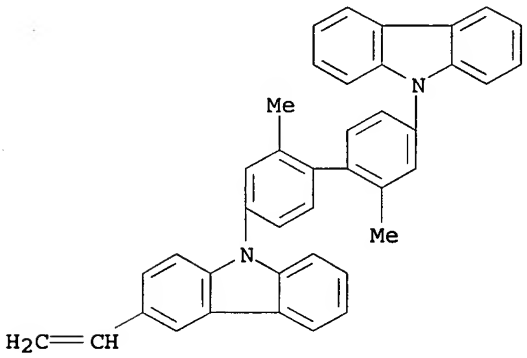
CM 1

CRN 714976-37-1
CMF C28 H22 N2



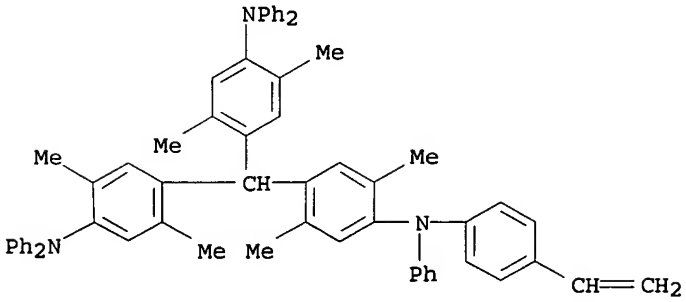
CM 2

CRN 714976-22-4
CMF C40 H30 N2



CM 3

CRN 714976-20-2
CMF C63 H57 N3



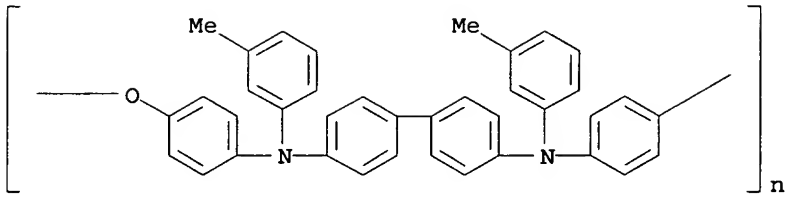
IC ICM H05B033-14
ICS C08F212-00; C08F220-34; C08F226-12; C08F293-00; C08G081-00;

C08G085-00; C09K011-06; H05B033-10
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 37, **74**
IT 714976-00-8 714976-02-0 **714976-05-3** 714976-08-6
714976-11-1 714976-13-3 714976-16-6 714976-18-8
714976-21-3 714976-25-7 **714976-27-9**
714976-29-1 714976-31-5 714976-33-7 **714976-35-9**
714976-36-0 714976-38-2
RL: DEV (Device component use); USES (Uses)
(organic electroluminescent device having phosphorescent dopant and multifunctioning polymer in light emitting layer)

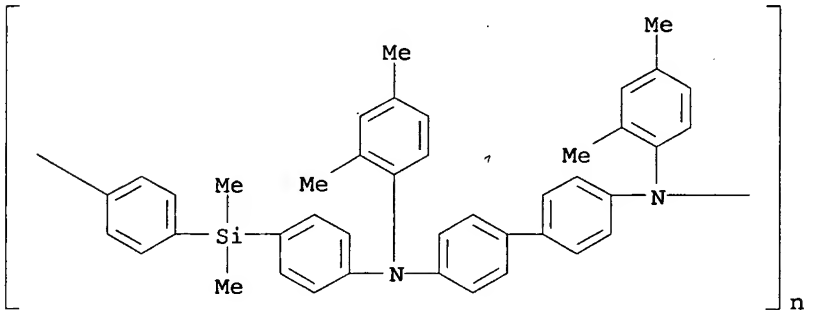
L74 ANSWER 11 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:530235 HCAPLUS
DOCUMENT NUMBER: 141:79279
TITLE: Electrophotographic photoreceptor using polyamine charge-transporting agent, process cartridge, and image forming apparatus
INVENTOR(S): Takatani, Itaru; Kawahara, Masataka; Tanaka, Takakazu; Ogaki, Harunobu; Nakajima, Yuka
PATENT ASSIGNEE(S): Canon Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004184569	A2	20040702	JP 2002-349402	2002 1202
PRIORITY APPLN. INFO.:			JP 2002-349402	2002 1202

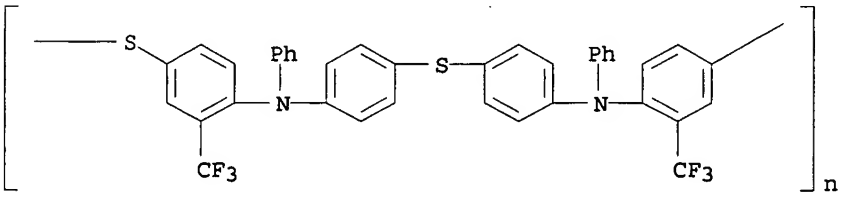
OTHER SOURCE(S): MARPAT 141:79279
AB The photoreceptor has a photosensitive **layer** containing a polymer **charge-transporting** agent with a repeated structural unit NAr11Ar13NAr12Ar14 [Ar11, Ar12 = bivalent group with aromatic hydrocarbon cyclic or aromatic heterocyclic group; Ar13, Ar14 = (un)substituted monovalent aromatic hydrocarbon or heterocyclic group; n ≥3], in which the surface is exposed by a monochromatic **light source** with 400-410 nm wavelength. The process cartridge removably incorporated in the apparatus, involves the obtained photoreceptor and ≥1 of charging, developing, transferring, and cleaning devices. The apparatus has an exposing device with the above **light source.** The photoreceptor shows high sensitivity and improved abrasion resistance, mech. strength, and stability in repeated use.
IT **713110-42-0 713110-45-3 713110-51-1**
713110-53-3 713110-55-5 713110-57-7
713110-58-8
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor using polymer charge-transporting agent)
RN 713110-42-0 HCAPLUS
CN Poly[oxy-1,4-phenylene[(3-methylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(3-methylphenyl)imino]-1,4-phenylene] (9CI) (CA INDEX NAME)



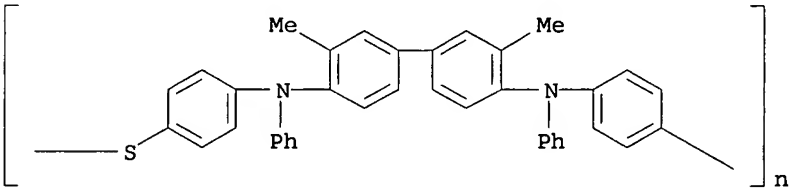
RN 713110-45-3 HCAPLUS
CN Poly[[(2,4-dimethylphenyl)imino][1,1'-biphenyl]-4,4'-diyl[(2,4-dimethylphenyl)imino]-1,4-phenylene(dimethylsilylene)-1,4-phenylene] (9CI) (CA INDEX NAME)



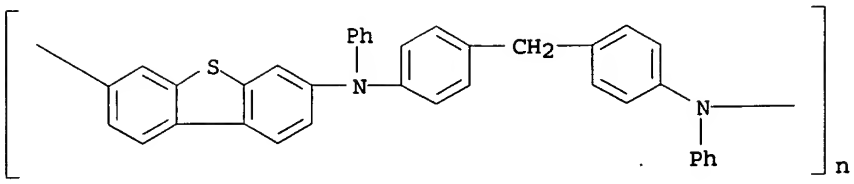
RN 713110-51-1 HCAPLUS
CN Poly[thio[3-(trifluoromethyl)-1,4-phenylene](phenylimino)-1,4-phenylenethio-1,4-phenylene(phenylimino)[2-(trifluoromethyl)-1,4-phenylene]] (9CI) (CA INDEX NAME)



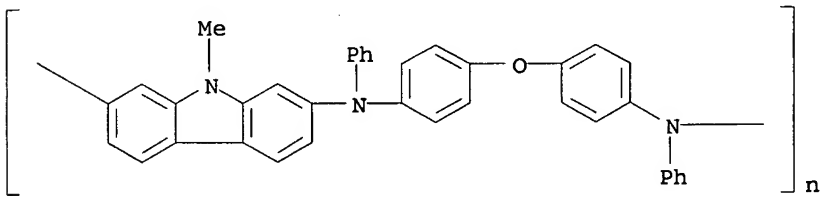
RN 713110-53-3 HCAPLUS
CN Poly[thio-1,4-phenylene(phenylimino)(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)



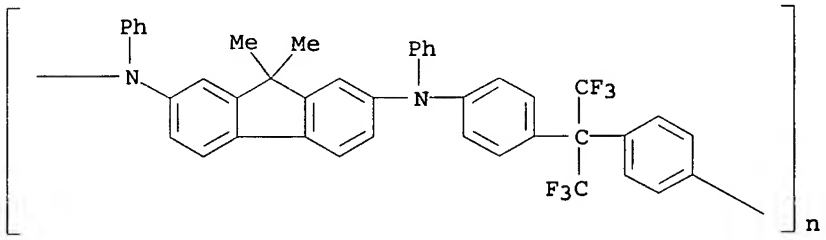
RN 713110-55-5 HCAPLUS
CN Poly[3,7-dibenzothiophenediyl(phenylimino)-1,4-phenylenemethylene-1,4-phenylene(phenylimino)] (9CI) (CA INDEX NAME)



RN 713110-57-7 HCAPLUS
CN Poly[(9-methyl-9H-carbazole-2,7-diyl)(phenylimino)-1,4-phenyleneoxy-1,4-phenylene(phenylimino)] (9CI) (CA INDEX NAME)



RN 713110-58-8 HCAPLUS
CN Poly[(phenylimino)(9,9-dimethyl-9H-fluorene-2,7-diyl)(phenylimino)-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-07
ICS B41J002-44; G03G005-06; G03G005-147; G03G015-04
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 38
ST electrophotog app monochromatic **light source**; polyamine charge transporting agent electrophotog
IT **Electroluminescent** devices
Electrophotographic apparatus
Semiconductor lasers
(electrophotog. apparatus using monochromatic **light source**)
IT Electrophotographic **photoconductors** (photoreceptors)
(electrophotog. photoreceptor using polymer charge-transporting agent)
IT 618108-75-1, Poly[2,6-pyridinediyl(phenylimino)]
713110-42-0 713110-43-1 713110-44-2
713110-45-3 713110-46-4 713110-47-5 713110-48-6
713110-49-7 713110-50-0 **713110-51-1** 713110-52-2
713110-53-3 713110-54-4 **713110-55-5**
713110-56-6 **713110-57-7** **713110-58-8**
713110-59-9
RL: DEV (Device component use); USES (Uses)
(electrophotog. photoreceptor using polymer charge-transporting agent)

IT 25617-97-4, Gallium nitride
RL: DEV (Device component use); USES (Uses)
(semiconductor laser **light source**;
electrophotog. apparatus using monochromatic **light source**)

L74 ANSWER 12 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:507903 HCAPLUS
DOCUMENT NUMBER: 141:79095
TITLE: Organic electroluminescent devices with high luminance and long life, luminescent materials therefor, and their preparation
INVENTOR(S): Shigehiro, Harunori; Tamano, Michiko; Kurata, Ryuichiro
PATENT ASSIGNEE(S): Toyo Ink Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004176024	A2	20040624	JP 2002-347405	2002 1129

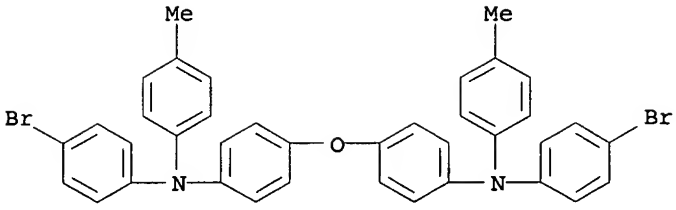
PRIORITY APPLN. INFO.: JP 2002-347405 2002 1129

AB The devices, useful for planer light sources and displays, contain (R1R2)n [R1 = Ar3R3R4R5Ar4 [Ar3, Ar4 = (hetero)arylene; R4 = vinyl- or (hetero)aryl-containing bivalent conjugated organic residue with Mw 1000-1,000,000; R3, R5 = amino]; R2 = O, S, Se, R6R7R8 [R7 = direct bond, hydrocarbylene, (hetero)arylene; R6, R8 = O, S, Se, CO2, OCO (R6 = R7 = R8 ≠ direct bond)]] in emission layers. Alternately, the group R1 may be Ar3NAr1R4NAr2Ar4 [Ar1, Ar2 = (hetero)aryl; Ar3, Ar4 = (hetero)arylene; R4 = the same as above]. The materials are prepared by generation of C-C bonds between (un)substituted (hetero)aryl or (un)substituted vinyl groups in the presence of **Ni** or **Pd catalysts.**

IT **710961-12-9DP**, PEDOT complex
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(emitting layers; high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
RN 710961-12-9 HCAPLUS
CN Benzenamine, 4,4'-oxybis[N-(4-bromophenyl)-N-(4-methylphenyl)-, polymer with 2,7-dibromo-9,9-bis(2-ethylhexyl)-9H-fluorene (9CI) (CA INDEX NAME)

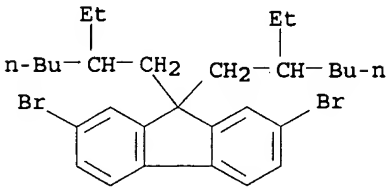
CM 1

CRN 710961-11-8
CMF C38 H30 Br2 N2 O



CM 2

CRN 188200-93-3
CMF C29 H40 Br2



IC ICM C08G065-40
ICS C08G079-00; C09K011-06; H05B033-14
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 74
ST electroluminescent device polyamine polythiophene PEDOT complex; nickel catalyzed dibromofluorene phenylamine **LED** emission layer
IT Electroluminescent devices
(high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
IT Polyethers, uses
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-, cardo, emitting layers; high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
IT Cardo polymers
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyamine-polyethers, emitting layers; high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
IT Polyamines
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(polyether-, cardo, emitting layers; high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
IT Conducting polymers
(polythiophenes, polyamine-polyether-, emitting layers; high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
IT 65181-78-4, TPD (photoreceptor)
RL: DEV (Device component use); USES (Uses)
(emitting layers doped with; high-luminance and long-life organic

LED containing polyamine-polythiophenes in emission layers)
IT **710961-12-9DP**, PEDOT complex 710961-16-3DP, PEDOT complex
RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(emitting layers; high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
IT 710961-19-6D, PEDOT complex
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(emitting layers; high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)
IT 1295-35-8 14221-01-3, Tetrakis(triphenylphosphine)palladium
RL: CAT (Catalyst use); USES (Uses)
(high-luminance and long-life organic **LED** containing polyamine-polythiophenes in emission layers)

L74 ANSWER 13 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:181887 HCAPLUS
DOCUMENT NUMBER: 140:225769
TITLE: Electrophotographic photosensitive member, process cartridge and electrophotographic apparatus
INVENTOR(S): Tanaka, Takakazu; Takaya, Itaru; Ishiduka, Yuka; Ogaki, Harunobu; Kaku, Kenichi
PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan
SOURCE: Eur. Pat. Appl., 42 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1394617	A2	20040303	EP 2003-19487	2003 0828
EP 1394617	A3	20050105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004109999	A2	20040408	JP 2003-297680	2003 0821
US 2005100805	A1	20050512	US 2003-649679	2003 0828
US 6994941	B2	20060207		
CN 1495542	A	20040512	CN 2003-156121	2003 0829
US 2005208402	A1	20050922	US 2005-129412	2005 0516

PRIORITY APPLN. INFO.:
JP 2002-253631 A 2002 0830
JP 2003-297680 A 2003 0821
US 2003-649679 A3

2003
0828

OTHER SOURCE(S): MARPAT 140:225769

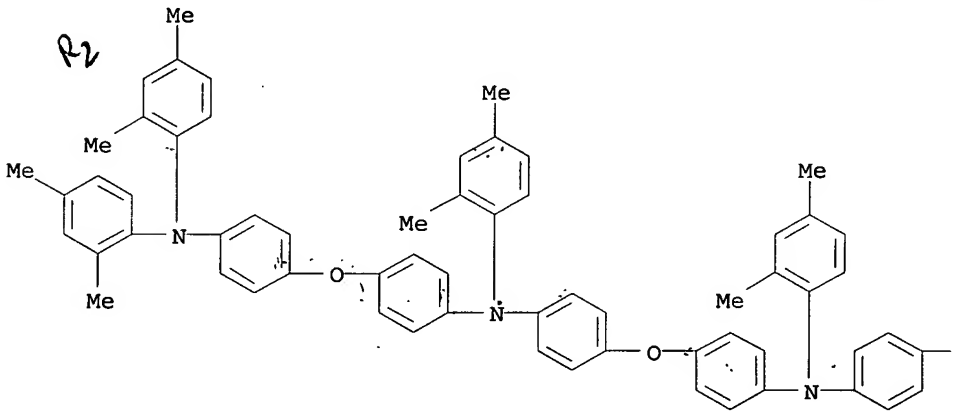
AB An electrophotog. photosensitive member is provided having a support and a photosensitive layer provided on the support and containing at least one kind of charge-transporting material which has a specific structure with a mol. weight of 1,500-4,000, and is held in a proportion of from 90-100% based on the total weight of the charge-transporting material.

IT **666176-07-4 666176-08-5**
RL: TEM (Technical or engineered material use); USES (Uses)
(charge-transporting material; electrophotog. photosensitive member, process cartridge and electrophotog. apparatus containing)

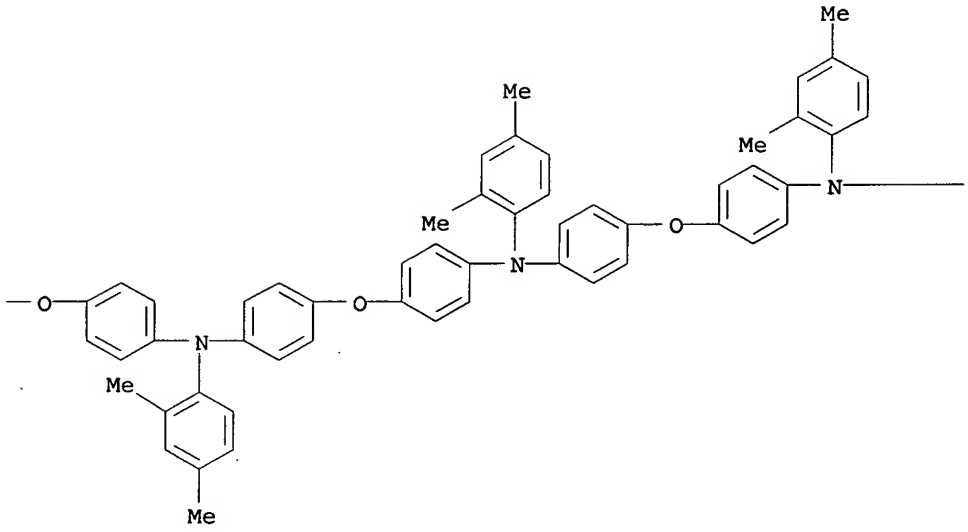
RN 666176-07-4 HCAPLUS

CN Benzenamine, 4,4'-oxybis[N-[4-[4-[[4-[4-[bis(2,4-dimethylphenyl)amino]phenoxy]phenyl](2,4-dimethylphenyl)amino]phenoxy]phenyl]-N-(2,4-dimethylphenyl)- (9CI) (CA INDEX NAME)

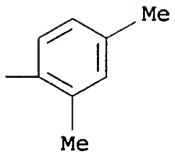
PAGE 1-A



PAGE 1-B

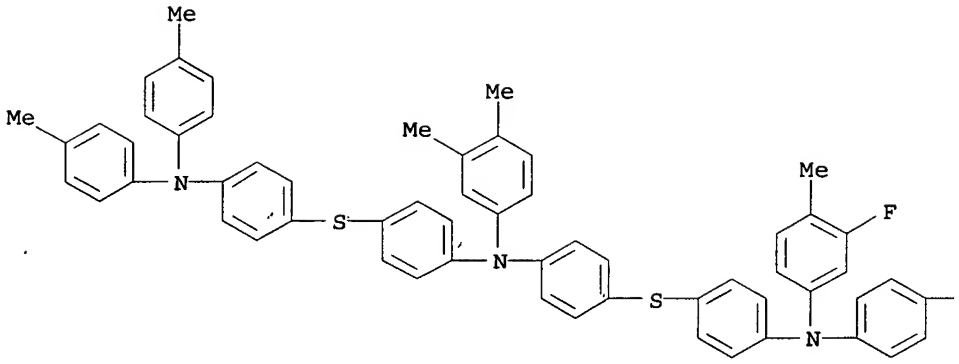


PAGE 1-C

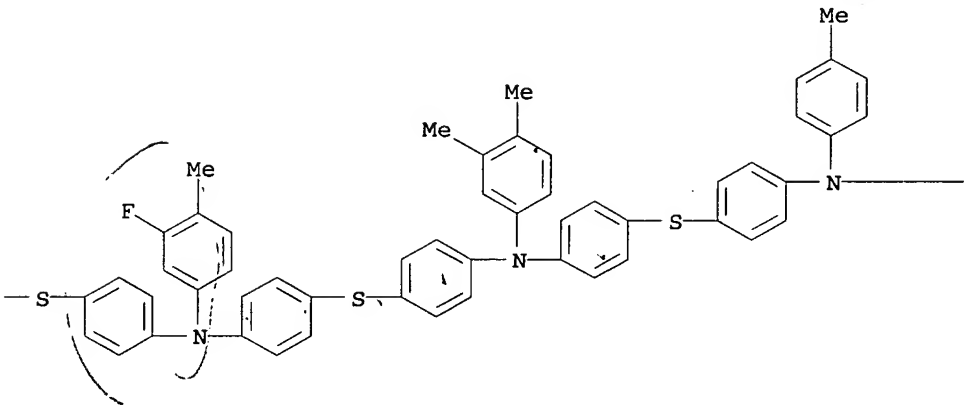


RN 666176-08-5 HCAPLUS
CN Benzenamine, 4,4'-thiobis[N-[4-[[4-[[4-[[4-[bis(4-methylphenyl)amino]phenyl]thio]phenyl](3,4-dimethylphenyl)amino]phenyl]thio]phenyl]-N-(3-fluoro-4-methylphenyl)- (9CI) (CA INDEX NAME)

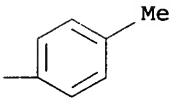
PAGE 1-A



PAGE 1-B



PAGE 1-C



IC ICM G03G005-06
ICS G03G005-05

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)

IT 666175-89-9 666175-90-2 666175-91-3 666175-92-4
666175-93-5 666175-94-6 666175-96-8 666175-97-9
666175-98-0 666176-01-8 666176-02-9 666176-03-0
666176-04-1 666176-05-2 666176-06-3 **666176-07-4**
666176-08-5 666176-09-6 666176-10-9
RL: TEM (Technical or engineered material use); USES (Uses)
(charge-transporting material; electrophotog. photosensitive member, process cartridge and electrophotog. apparatus containing)

L74 ANSWER 14 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:41564 HCAPLUS
DOCUMENT NUMBER: 140:95573
TITLE: Charge transport compositions and **electronic devices** made with such compositions
INVENTOR(S): Herron, Norman; Radu, Nora S.; Smith, Eric Maurice; Wang, Ying
PATENT ASSIGNEE(S): E. I. Du Pont de Nemours & Co., USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005406	A2	20040115	WO 2003-US21612	20030709
WO 2004005406	A3	20040521		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004066135	A1	20040408	US 2003-612482	20030702
US 2004068115	A1	20040408	US 2003-612493	20030702
US 6962995	B2	20051108		
US 2004092687	A1	20040513	US 2003-612237	20030702
US 2004097725	A1	20040520	US 2003-612244	20030702
CA 2492686	AA	20040115	CA 2003-2492686	20030709
AU 2003251850	A1	20040123	AU 2003-251850	20030709
EP 1532209	A2	20050525	EP 2003-763459	20030709
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2005533341	T2	20051104	JP 2004-520121	20030709
US 2004077860	A1	20040422	US 2003-612704	20031208
US 2005236980	A1	20051027	US 2005-155068	

PRIORITY APPLN. INFO.:

US 2002-394767P	P	2005 0617
US 2003-458277P	P	2002 0710
US 2003-612493	A3	2003 0328
WO 2003-US21612	W	2003 0702
		2003 0709

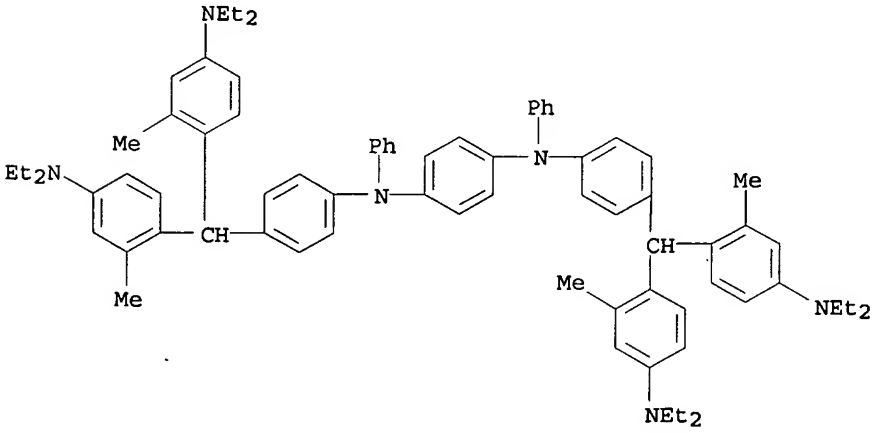
OTHER SOURCE(S): MARPAT 140:95573

AB The present invention relates to photoactive charge transport compns. containing triarylmethane compds. XZCH(ZNR2)2 where R = H, organic group (R2N may form a heterocycle); X = organic group, halogen, NO2, OH; Z = arylene, heteroarylene. The compds. may be used to prepare organic light-emitting devices (OLEDs) with improved characteristics. In an example, N,N-diethyl-m-toluidine was condensed with p-fluorobenzaldehyde to give p-FC6F4CH(o-Me-p-NEt2C6H3), which showed OLED utility.

IT **645401-14-5P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(triarylmethane-based photoactive charge-transport compds. for **LED** applications)

RN 645401-14-5 HCAPLUS

CN 1,4-Benzenediamine, N,N'-bis[4-[bis[4-(diethylamino)-2-methylphenyl]methyl]phenyl]-N,N'-diphenyl- (9CI) (CA INDEX NAME)



IC ICM C09B011-00
ICS C09K011-06

CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 25, 76, 78

ST photoactive triarylmethane compd prodn **LED**

IT Chemicals
(photoactive; preparation of triarylmethane-based photoactive charge-transport compds. for **LED** applications)

IT Electroluminescent devices

(preparation of triarylmethane-based photoactive charge-transport compds. for **LED** applications)

IT Dyes
(triarylmethane; preparation of triarylmethane-based photoactive charge-transport compds. for **LED** applications)

IT 110677-45-7P 119001-43-3P 290829-75-3P 370878-58-3P 645401-15-6P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of triarylmethane-based photoactive charge-transport compds. for **LED** applications)

IT 68-12-2, DMF, reactions 74-31-7, N,N'-Diphenyl-p-phenylenediamine 86-74-8, Carbazole 91-67-8, N,N-Diethyl-m-toluidine 104-87-0, p-Tolualdehyde 459-57-4, p-Fluorobenzaldehyde 626-19-7, Isophthalaldehyde 626-39-1, 1,3,5-Tribromobenzene 1122-91-4, p-Bromobenzaldehyde 1765-93-1, 4-Fluorophenylboronic acid 4181-05-9, p-(Diphenylamino)benzaldehyde 4316-58-9, Tris(4-bromophenyl)amine 4885-02-3, Dichloromethyl methyl ether 5459-79-0 14996-61-3, Iridium trichloride hydrate 16004-75-4, 1,3,5,7-Tetraphenyladamantane 19955-99-8, 3-Vinylbenzaldehyde 52334-81-3, 2-Chloro-5-(trifluoromethyl)pyridine 56990-02-4, 3,5-Dibromobenzaldehyde 87199-17-5, 4-Formylphenylboronic acid
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; preparation of triarylmethane-based photoactive charge-transport compds. for **LED** applications)

IT 15008-36-3P 36217-56-8P 40660-35-3P 40660-36-4P 40660-48-8P 68582-43-4P 68582-44-5P 81332-43-6P 364067-15-2P 645400-95-9P 645400-96-0P 645400-97-1P 645400-98-2P 645400-99-3P 645401-00-9P 645401-01-0P 645401-02-1P 645401-03-2P 645401-04-3P 645401-07-6P 645401-08-7P 645401-09-8P 645401-10-1P 645401-11-2P 645401-12-3P 645401-13-4P **645401-14-5P**
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(triarylmethane-based photoactive charge-transport compds. for **LED** applications)

IT 645401-05-4 645401-06-5
RL: TEM (Technical or engineered material use); USES (Uses)
(triarylmethane-based photoactive charge-transport compds. for **LED** applications)

L74 ANSWER 15 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:758031 HCAPLUS
DOCUMENT NUMBER: 139:283129
TITLE: Organic thin-film device and its production method
INVENTOR(S): Tateishi, Tomomi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003079734	A1	20030925	WO 2003-JP3331	2003 0319

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,

MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC,
SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US,
UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,
PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG

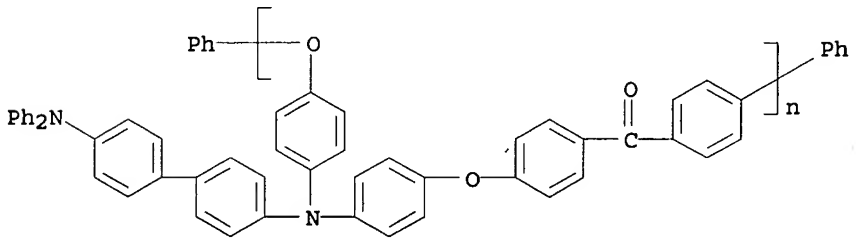
AU 2003217480	A1	20030929	AU 2003-217480	2003 0319
JP 2005521209	T2	20050714	JP 2003-577581	2003 0319
US 2005252602	A1	20051117	US 2004-507927	2004 0917
PRIORITY APPLN. INFO.:			JP 2002-79123 A	2002 0320
			WO 2003-JP3331 W	2003 0319

AB A method of fabricating an organic thin-film (e.g., organic **LED**) device is described entailing (a) heating and/or pressing a transfer material having an organic thin-film layer formed on a temporary support and a 1st laminate comprising a substrate and at least a transparent conductive layer or a rear-surface electrode formed on the substrate, which are overlapped each other such that the organic thin-film layer of the transfer material faces a receiving surface of the 1st laminate, thereby forming a laminate structure; (b) peeling the temporary support from the laminate structure to transfer the organic thin-film layer to the receiving surface of the 1st laminate; and (c) bonding a 2nd laminate comprising a substrate and at least a rear-surface electrode or a transparent conductive layer formed on the substrate to the organic thin-film layer transferred onto the 1st laminate.

IT **605685-46-9**
RL: DEV (Device component use); USES (Uses)
(**hole-transporting** compds.; organic thin-**film** device fabricated by using transfer layer having organic film layer)

RN 605685-46-9 HCAPLUS

CN Poly[oxy-1,4-phenylene[[4'-(diphenylamino)[1,1'-biphenyl]-4-yl]imino]-1,4-phenyleneoxy-1,4-phenylenecarbonyl-1,4-phenylene], α,ω-diphenyl- (9CI) (CA INDEX NAME)



IC ICM H05B033-10
ICS H01L051-20

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 76

IT Polyvinyl butyrals
RL: DEV (Device component use); USES (Uses)
(**electron-transporting** material; organic thin-**film** device fabricated by using transfer layer having organic film layer)
IT **Electroluminescent** devices
Films
Semiconductor device fabrication
(organic thin-film device fabricated by using transfer layer having organic film layer)
IT 358974-66-0
RL: DEV (Device component use); USES (Uses)
(**electron-transporting** material; organic thin-**film** device fabricated by using transfer layer having organic film layer)
IT 24964-91-8 **605685-46-9**
RL: DEV (Device component use); USES (Uses)
(**hole-transporting** compds.; organic thin-**film** device fabricated by using transfer layer having organic film layer)
IT 25067-59-8, Polyvinyl carbazole 94928-86-6, Tris(2-phenylpyridine)iridium
RL: DEV (Device component use); USES (Uses)
(**light-emitting** layer; organic thin-film device fabricated by using transfer layer having organic film layer)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 16 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:346758 HCAPLUS
DOCUMENT NUMBER: 138:346519
TITLE: Laser thermal imaging process, dye, and thermal recording element
INVENTOR(S): Wang, Ruizheng; Williams, Kevin Wallace; Carroll-Lee, Ann L.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: Eur. Pat. Appl., 17 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1306410	A1	20030502	EP 2002-79241	2002 1014
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
US 2003138606	A1	20030724	US 2001-32922	2001 1025
US 6703111	B2	20040309		
JP 2003136837	A2	20030514	JP 2002-308733	2002 1023
PRIORITY APPLN. INFO.:			US 2001-32922 A	2001 1025

OTHER SOURCE(S): MARPAT 138:346519

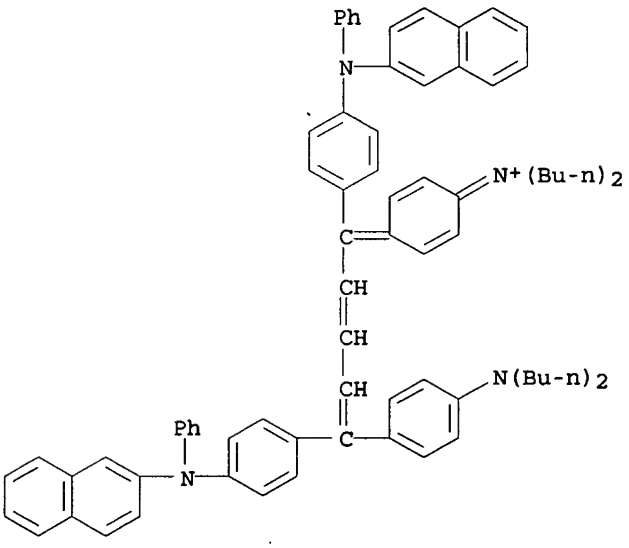
AB A laser-induced thermal recording element comprises a support having on it a colorant layer comprising a colorant dispersed in a polymeric binder, said colorant layer having associated therewith a laser light-absorbing dye absorbing at the wavelength of a laser used to expose said element, said laser light-absorbing dye comprising a polymethine (cyanine) dye having covalently bonded to it a phenylenediamine moiety. The element exhibits improved dye stability.

IT **517891-87-1 517891-91-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(laser thermal imaging process containing dye and thermal recording element)

RN 517891-87-1 HCAPLUS
CN 1-Butanaminium, N-butyl-N-[4-[5-[4-(dibutylamino)phenyl]-1,5-bis[4-(2-naphthalenylphenylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

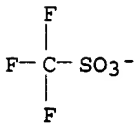
CM 1

CRN 517891-86-0
CMF C77 H79 N4



CM 2

CRN 37181-39-8
CMF C F3 O3 S

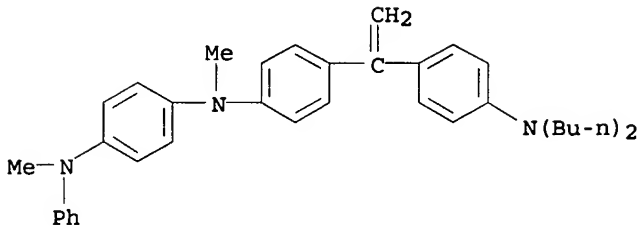


RN 517891-91-7 HCAPLUS
CN 1-Butanaminium, N-butyl-N-[4-[5-[4-(dibutylamino)phenyl]-1,5-bis[4-(2-naphthalenylphenylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, salt with trifluoromethanesulfonic acid, compd. with N-[4-[1-[4-(dibutylamino)phenyl]ethenyl]phenyl]-

N,N'-dimethyl-N'-phenyl-1,4-benzenediamine (1:1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 517891-90-6
CMF C36 H43 N3

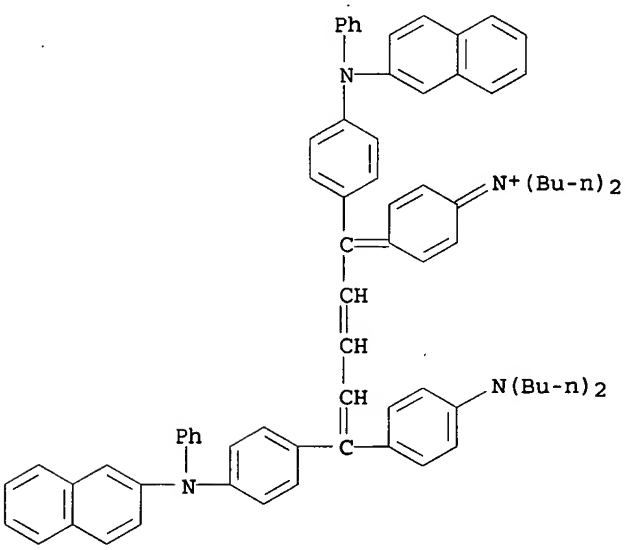


CM 2

CRN 517891-87-1
CMF C77 H79 N4 . C F3 O3 S

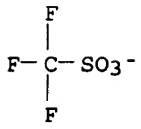
CM 3

CRN 517891-86-0
CMF C77 H79 N4



CM 4

CRN 37181-39-8
CMF C F3 O3 S



IC ICM C09B023-08
ICS B41M005-40
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT **517891-87-1** 517891-89-3 **517891-91-7**
517891-92-8 518026-47-6
RL: TEM (Technical or engineered material use); USES (Uses)
(laser thermal imaging process containing dye and thermal recording element)
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 17 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:778260 HCAPLUS
DOCUMENT NUMBER: 137:302226
TITLE: Materials, methods, and uses for photochemical generation of acids and/or radical species
INVENTOR(S): Marder, Seth; Perry, Joseph; Zhou, Wenhui; Kuebler, Stephen M.; Cammack, J. Kevin
PATENT ASSIGNEE(S): USA
SOURCE: PCT Int. Appl., 181 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002079691	A1	20021010	WO 2002-US8227	2002 0401
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2443317	AA	20021010	CA 2002-2443317	2002 0401
EP 1390664	A1	20040225	EP 2002-757791	2002 0401
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004529913	T2	20040930	JP 2002-578067	2002 0401
US 2005173683	A1	20050811	US 2003-473365	2002

PRIORITY APPLN. INFO.: US 2001-280672P P 0401 2001 0330

WO 2002-US8227 W 2002 0401

OTHER SOURCE(S): MARPAT 137:302226

AB Compds. and compns. which comprise ≥1 chromophore having simultaneous two-photon or multi-photon absorptivity and ≥1 acid- or radical-generator in close proximity to the chromophore are described in which the chromophore has a two-photon absorption cross-section > 50 + 10-50 cm4s/photon. Preferably, the generator comprises ≥1 sulfonium, selenonium, or iodonium group, or other acid- or radical generating group. The materials can be photo-patterned by one- or multiphoton excitation. Apparatus and methods for producing articles by such patterning, and the resulting articles, are also described.

IT **470483-29-5P**
RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

RN 470483-29-5 HCAPLUS

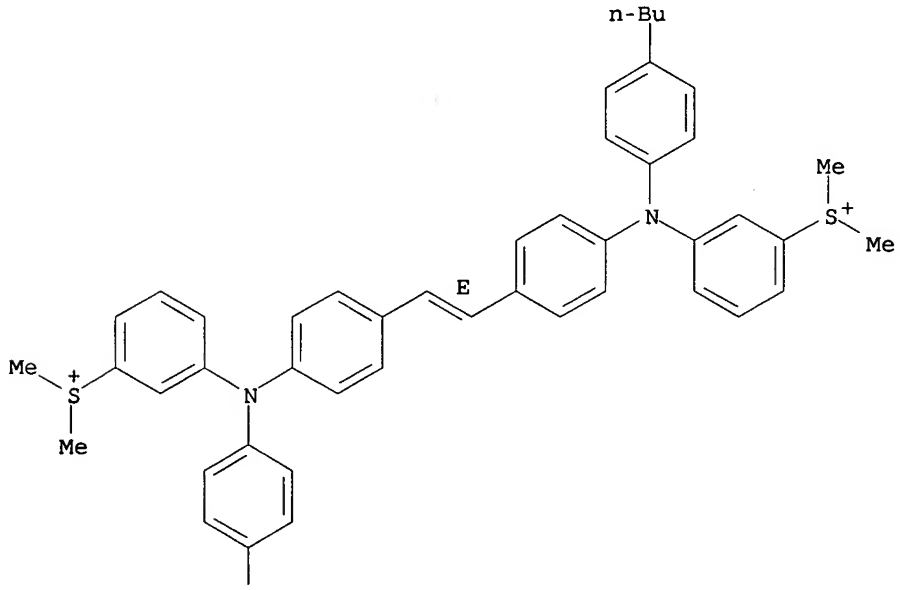
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 470483-23-9
CMF C50 H56 N2 S2

Double bond geometry as shown.

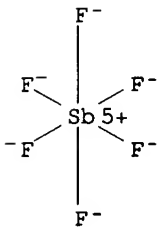
PAGE 1-A



n-Bu

CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



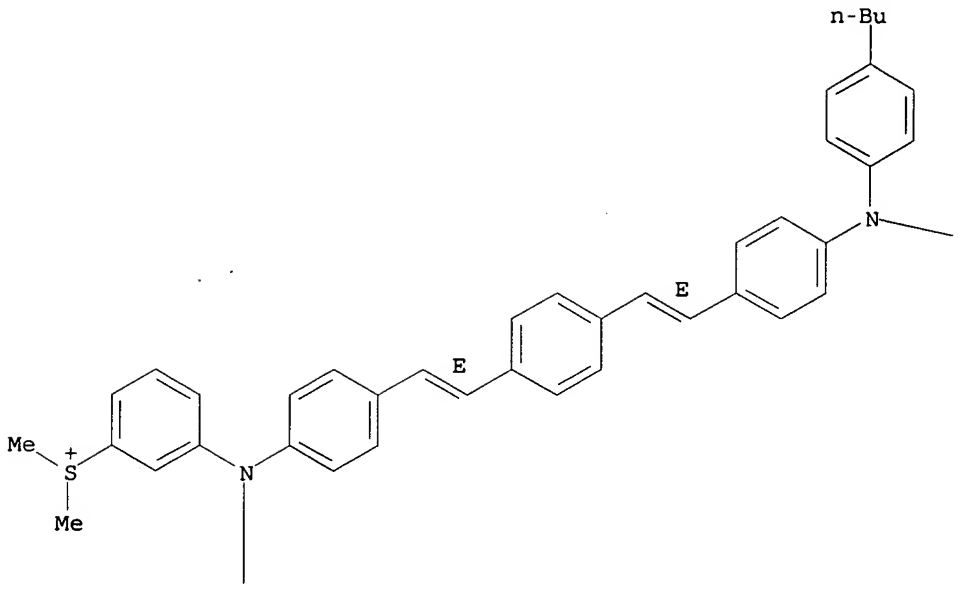
IT **470483-39-7P**
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)
RN 470483-39-7 HCAPLUS
CN Sulfonium, [1,4-phenylenebis[(1E)-2,1-ethenediyl-4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

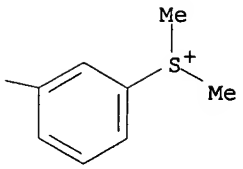
CRN 470483-38-6
CMF C58 H62 N2 S2

Double bond geometry as shown.

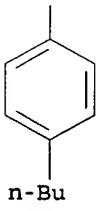
PAGE 1-A



PAGE 1-B

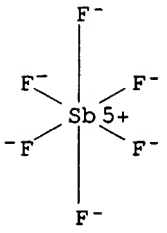


PAGE 2-A



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



IT **470483-49-9P 470483-51-3P**
RL: CAT (Catalyst use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

RN 470483-49-9 HCAPLUS

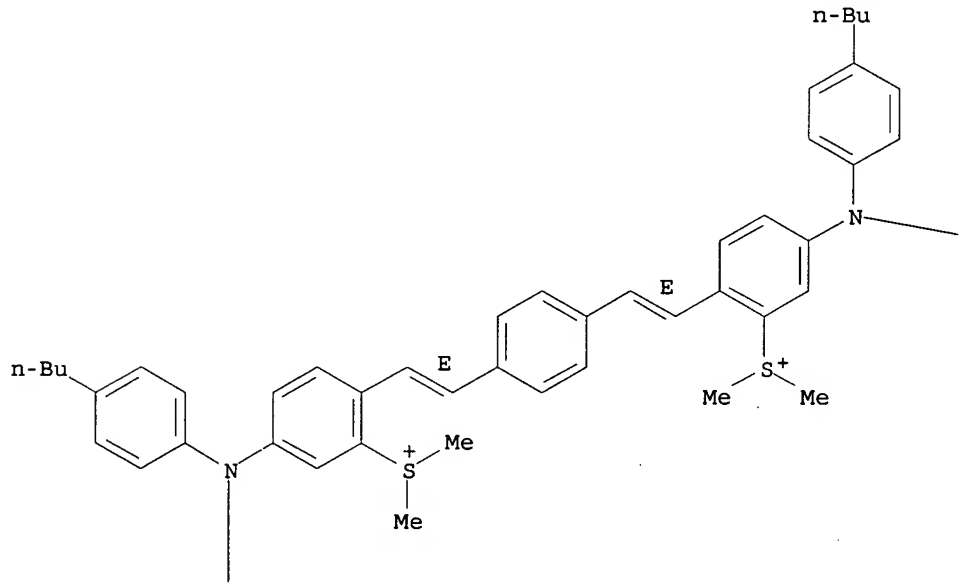
CN Sulfonium, [1,4-phenylenebis[(1E)-2,1-ethenediyl[5-[bis(4-butylphenyl)amino]-2,1-phenylene]]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

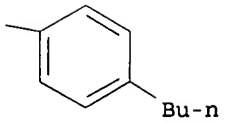
CRN 470483-48-8
CMF C66 H78 N2 S2

Double bond geometry as shown.

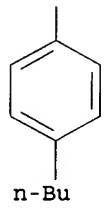
PAGE 1-A



PAGE 1-B

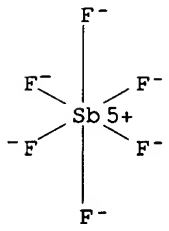


PAGE 2-A



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



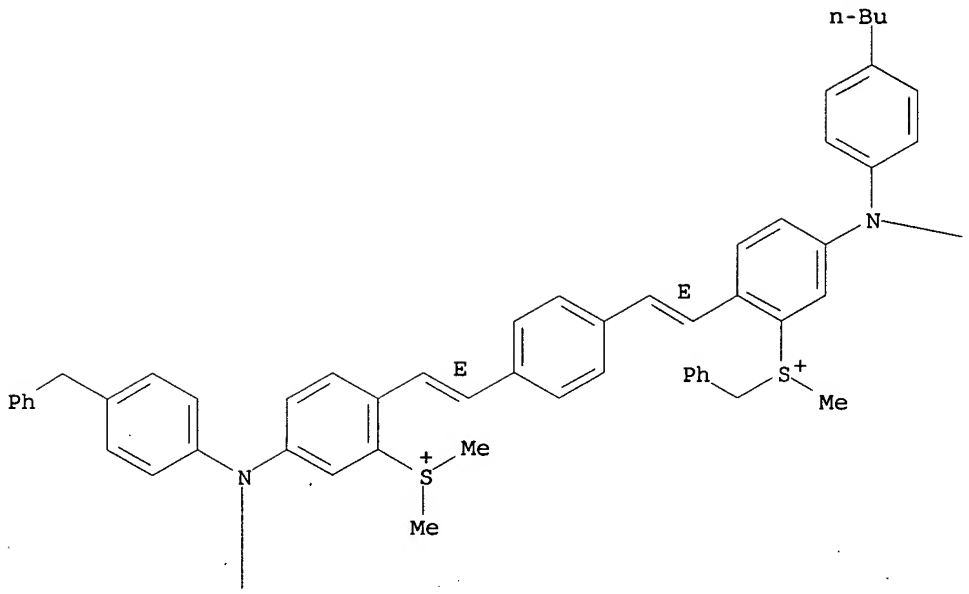
RN 470483-51-3 HCAPLUS
CN Sulfonium, [5-[bis(4-butylphenyl)amino]-2-[(1E)-2-[4-[(1E)-2-[4-[(4-butylphenyl)[4-(phenylmethyl)phenyl]amino]-2-(dimethylsulfonio)phenyl]ethenyl]phenyl]ethenyl]phenyl]methyl(phenylmethyl)-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

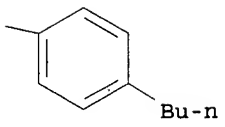
CRN 470483-50-2
CMF C75 H80 N2 S2

Double bond geometry as shown.

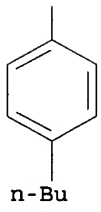
PAGE 1-A



PAGE 1-B

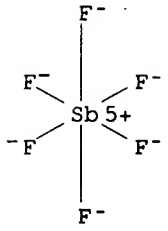


PAGE 2-A



CM 2

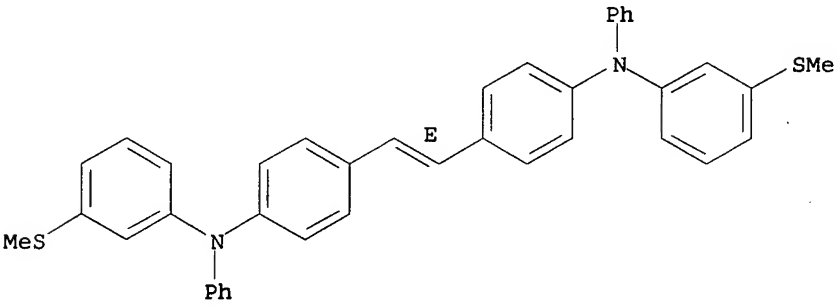
CRN 17111-95-4
CMF F6 Sb
CCI CCS



IT **470483-13-7P 470483-14-8P 470483-16-0P**
470483-18-2P 470483-32-0P 470483-33-1P
470483-46-6P 470483-47-7P 470483-61-5P
470483-62-6P 470483-63-7P 470483-64-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

RN 470483-13-7 HCAPLUS
CN Benzenamine, 4,4'-(1E)-1,2-ethenediylbis[N-[3-(methylthio)phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

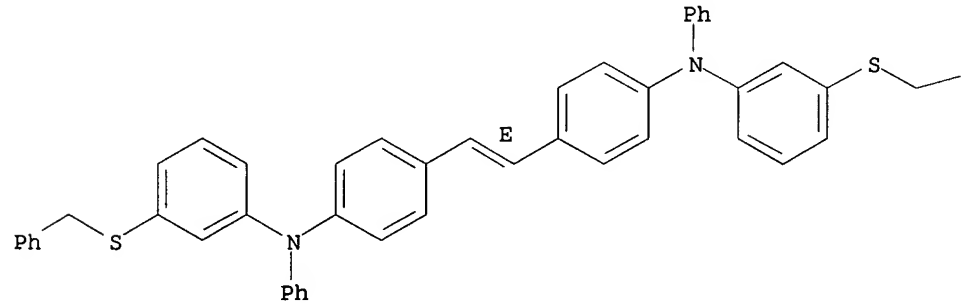
Double bond geometry as shown.



RN 470483-14-8 HCAPLUS
CN Benzenamine, 4,4'-(1E)-1,2-ethenediylbis[N-phenyl-N-[3-[(phenylmethyl)thio]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

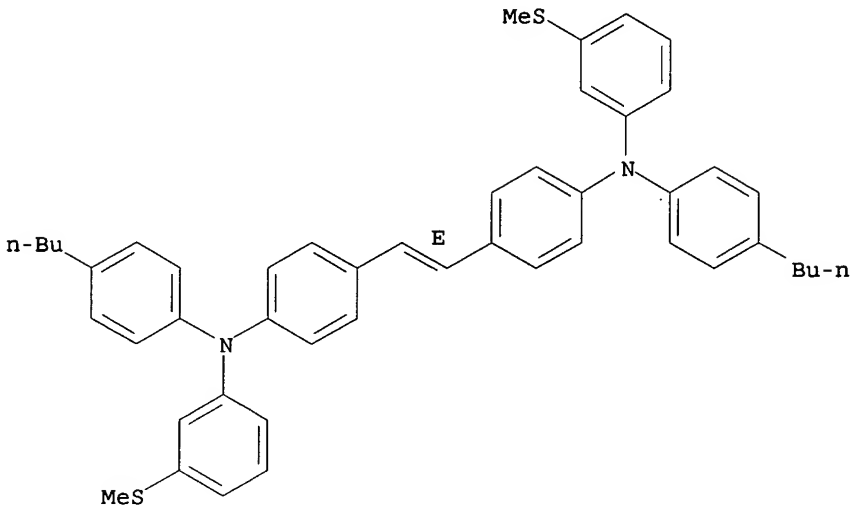
PAGE 1-A



— Ph

RN 470483-16-0 HCAPLUS
CN Benzenamine, 4,4'-(1E)-1,2-ethenediylbis[N-(4-butylphenyl)-N-[3-(methylthio)phenyl]- (9CI) (CA INDEX NAME)

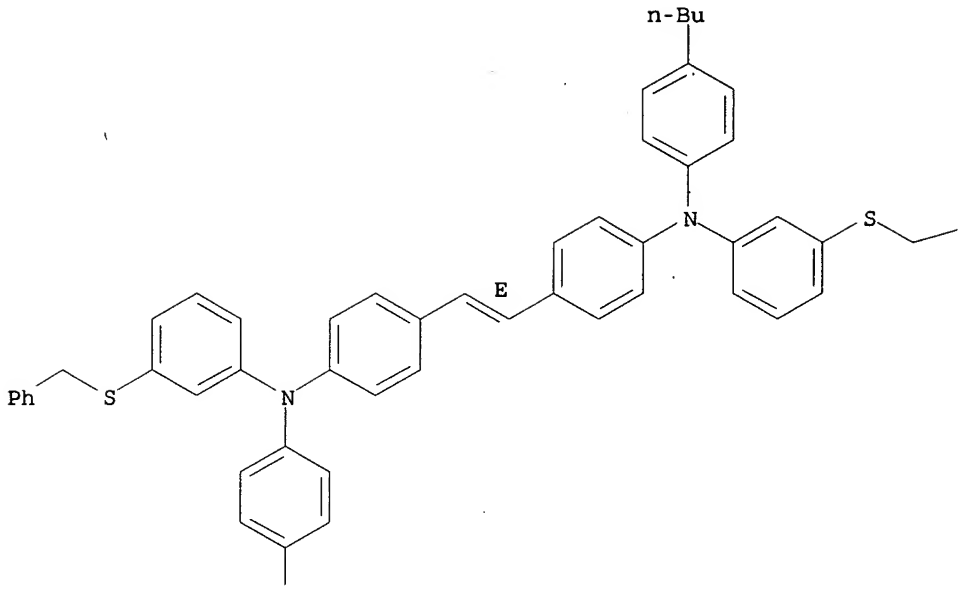
Double bond geometry as shown.



RN 470483-18-2 HCAPLUS
CN Benzenamine, 4,4'-(1E)-1,2-ethenediylbis[N-(4-butylphenyl)-N-[3-[(phenylmethyl)thio]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



PAGE 1-B

Ph

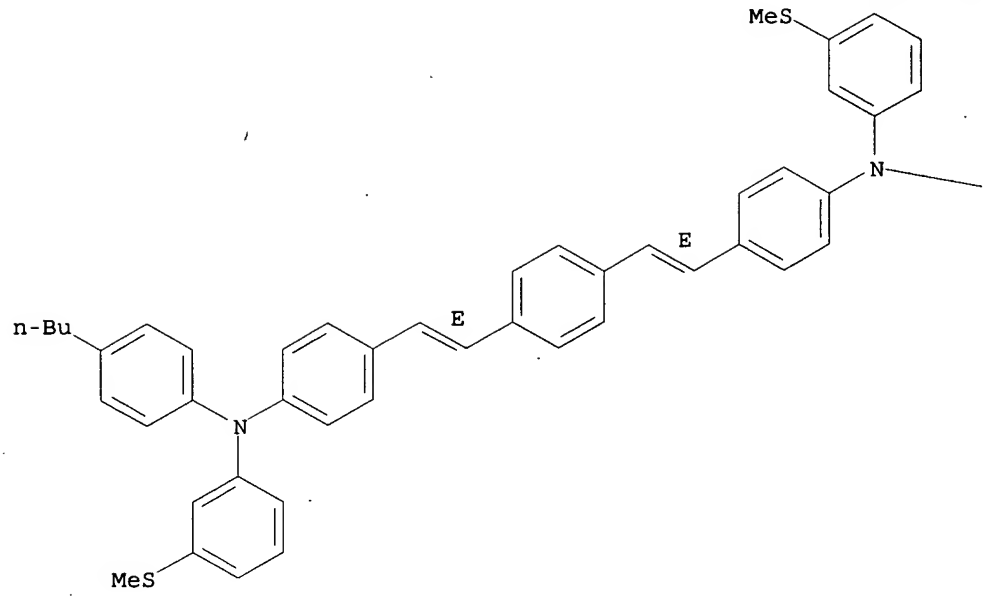
PAGE 2-A

n-Bu

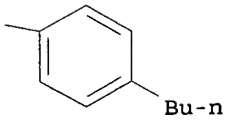
RN 470483-32-0 HCAPLUS
CN Benzenamine, 4,4'-[1,4-phenylenedi-(1E)-2,1-ethenediyl]bis[N-(4-butylphenyl)-N-[3-(methylthio)phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



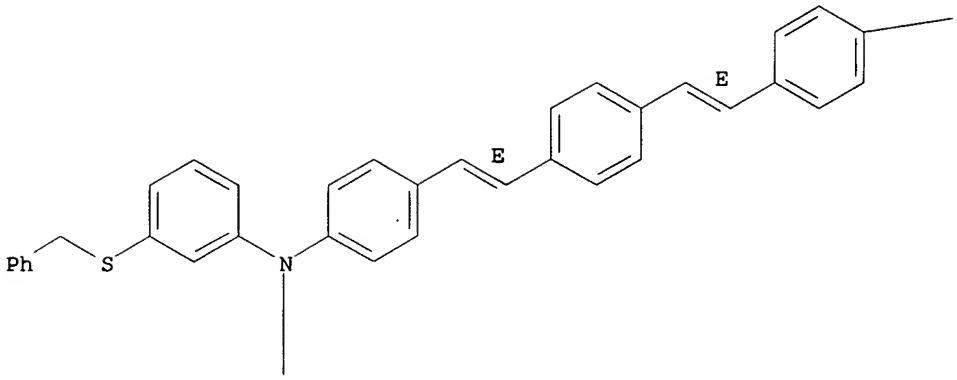
PAGE 1-B



RN 470483-33-1 HCAPLUS
CN Benzenamine, 4,4'-[1,4-phenylenedi-(1E)-2,1-ethenediyl]bis[N-(4-butylphenyl)-N-[3-[(phenylmethyl)thio]phenyl]- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

PAGE 1-A



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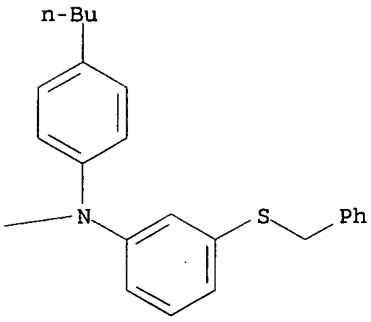
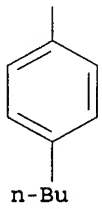


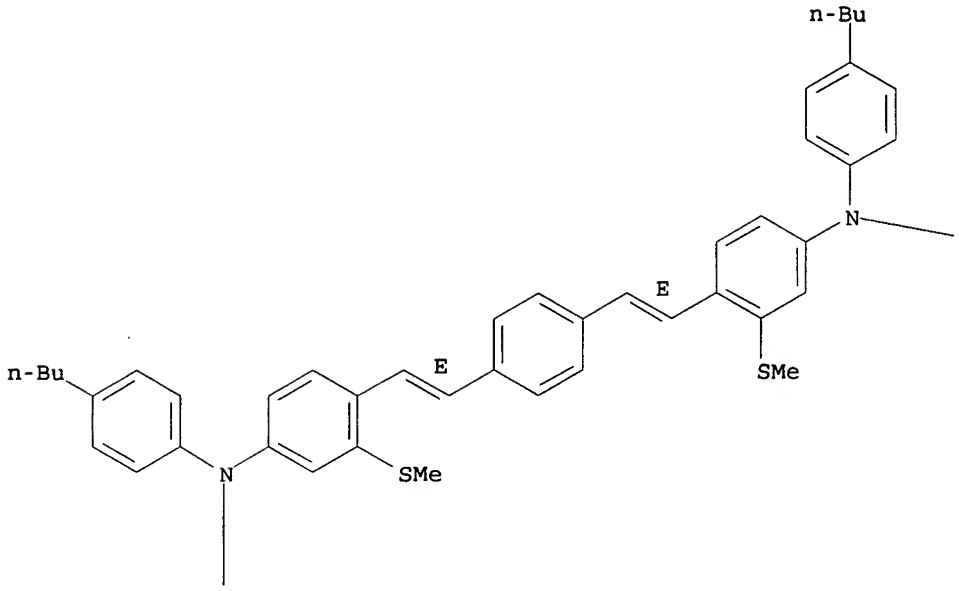
PAGE 2-A



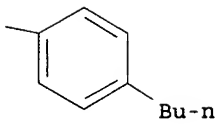
RN 470483-46-6 HCAPLUS
CN Benzenamine, 4,4'-[1,4-phenylenedi-(1E)-2,1-ethenediyl]bis[N,N-bis(4-butylphenyl)-3-(methylthio)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

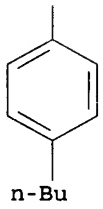
PAGE 1-A



PAGE 1-B



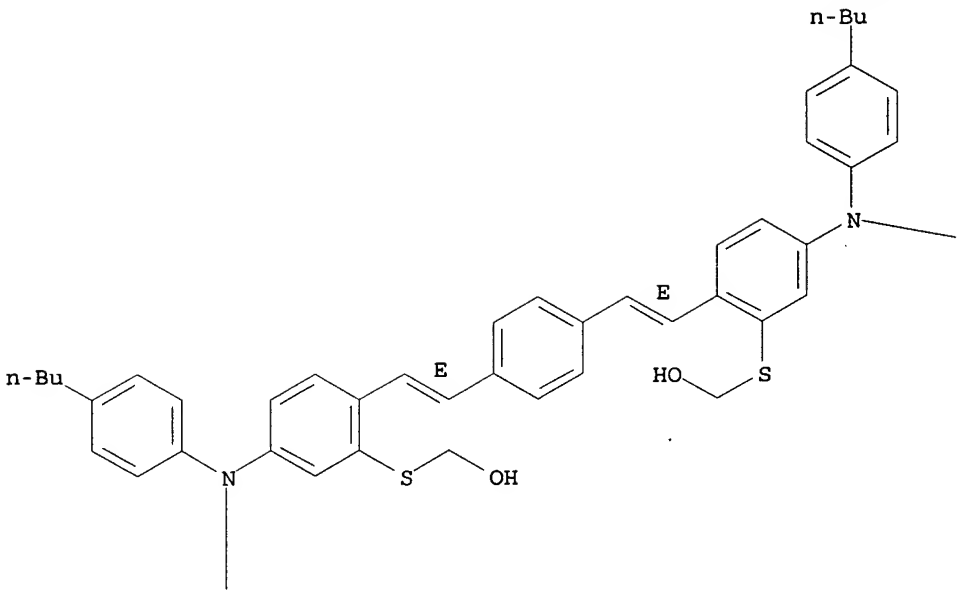
PAGE 2-A



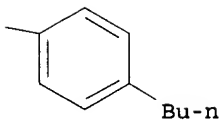
RN 470483-47-7 HCAPLUS
CN Methanol, [1,4-phenylenebis[(1E)-2,1-ethenediyl[5-[bis(4-butylphenyl)amino]-2,1-phenylene]thio]]bis- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

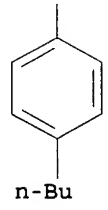
PAGE 1-A



PAGE 1-B



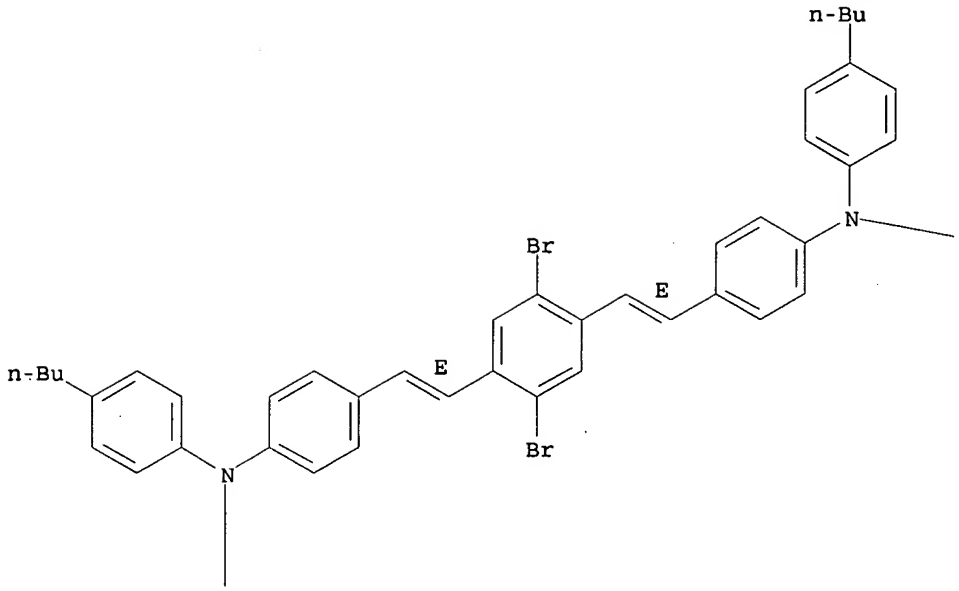
PAGE 2-A



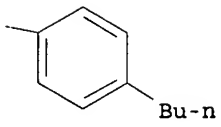
RN 470483-61-5 HCAPLUS
CN Benzenamine, 4,4'-[(2,5-dibromo-1,4-phenylene)di-(1E)-2,1-ethenediyl]bis[N,N-bis(4-butylphenyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

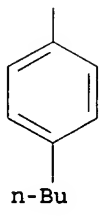
PAGE 1-A



PAGE 1-B



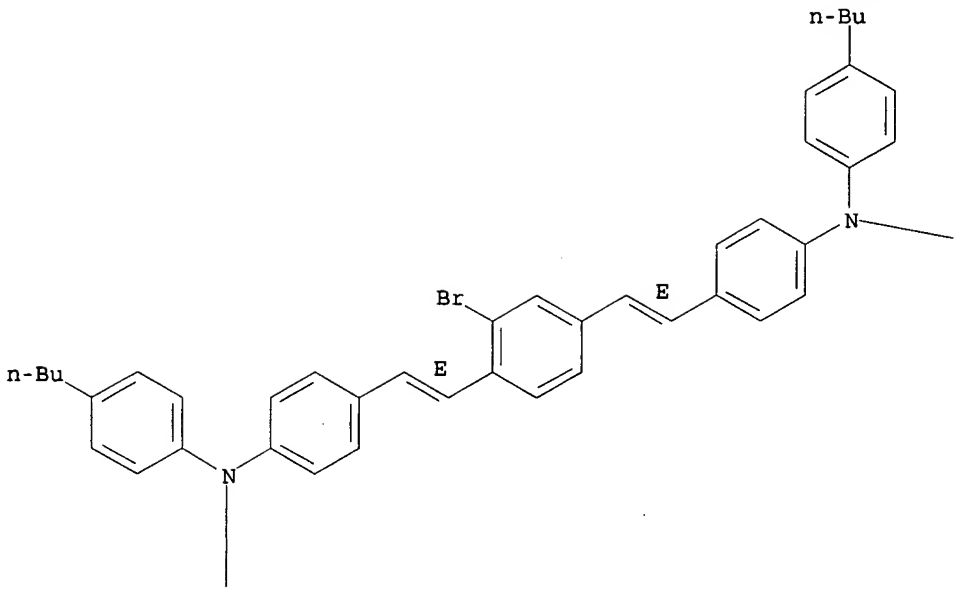
PAGE 2-A



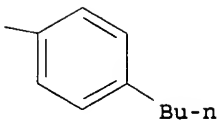
RN 470483-62-6 HCAPLUS
CN Benzenamine, 4,4'-[(2-bromo-1,4-phenylene)di-(1E)-2,1-ethenediyl]bis[N,N-bis(4-butylphenyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

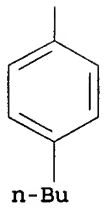
PAGE 1-A



PAGE 1-B



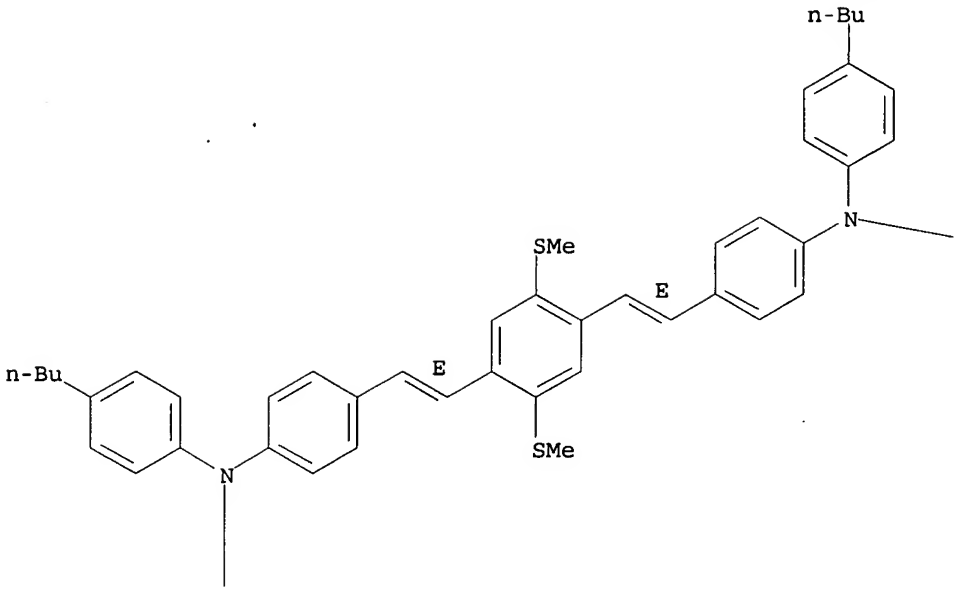
PAGE 2-A



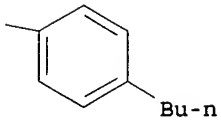
RN 470483-63-7 HCAPLUS
CN Benzenamine, 4,4'-[[2,5-bis(methylthio)-1,4-phenylene]di-(1E)-2,1-ethenediyl]bis[N,N-bis(4-butylphenyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

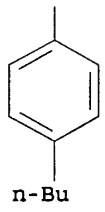
PAGE 1-A



PAGE 1-B



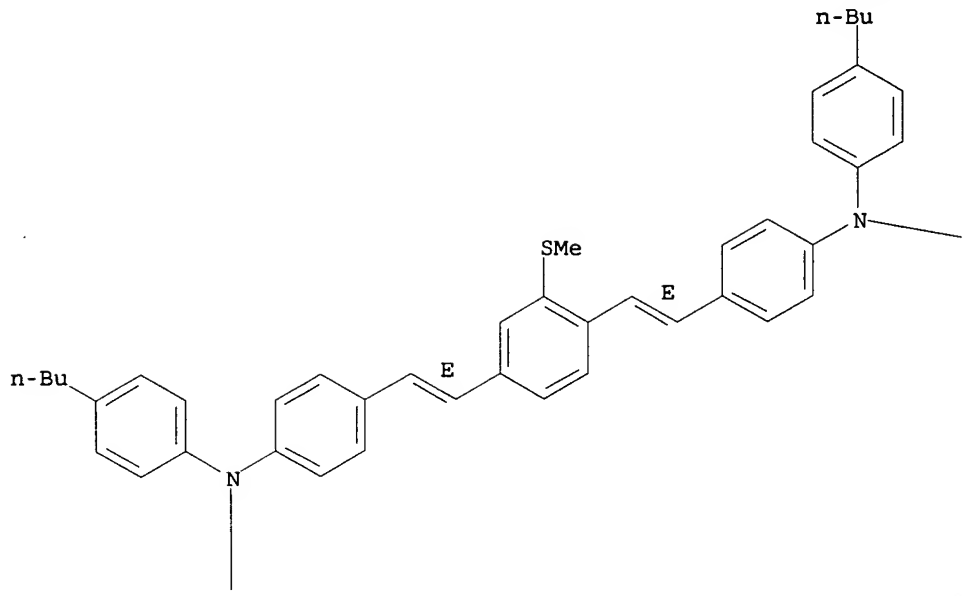
PAGE 2-A



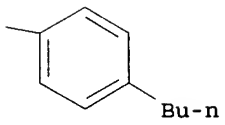
RN 470483-64-8 HCAPLUS
CN Benzenamine, 4,4'-[[2-(methylthio)-1,4-phenylene]di-(1E)-2,1-ethenediyl]bis[N,N-bis(4-butylphenyl)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

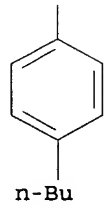
PAGE 1-A



PAGE 1-B



PAGE 2-A



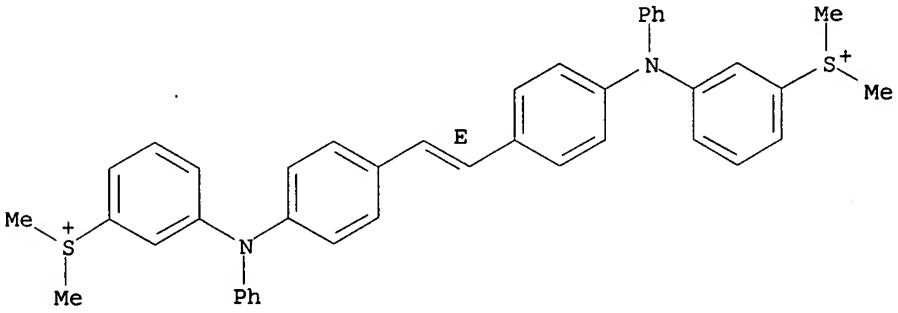
IT **470483-20-6P 470483-22-8P 470483-24-0P 470483-26-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

RN 470483-20-6 HCAPLUS
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene(phenylimino)-3,1-phenylene]]bis[dimethyl-, salt with trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

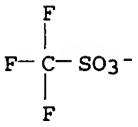
CRN 470483-19-3
CMF C42 H40 N2 S2

Double bond geometry as shown.



CM 2

CRN 37181-39-8
CMF C F3 O3 S



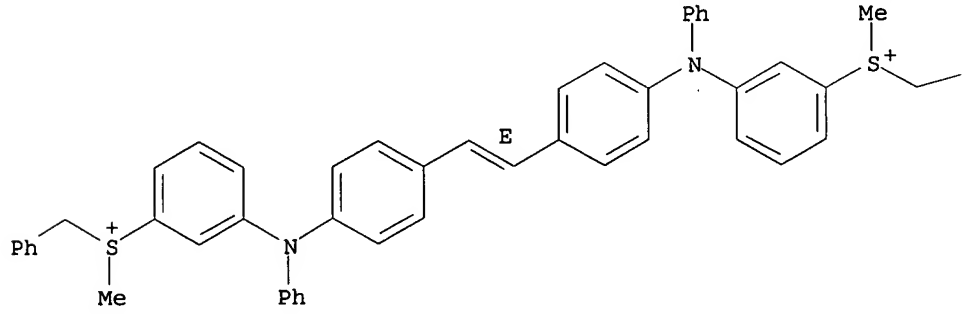
RN 470483-22-8 HCAPLUS
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene(phenylimino)-3,1-phenylene]]bis[methyl(phenylmethyl)-, salt with trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 470483-21-7
CMF C54 H48 N2 S2

Double bond geometry as shown.

PAGE 1-A

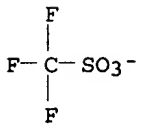


PAGE 1-B

Ph

CM 2

CRN 37181-39-8
CMF C F3 O3 S



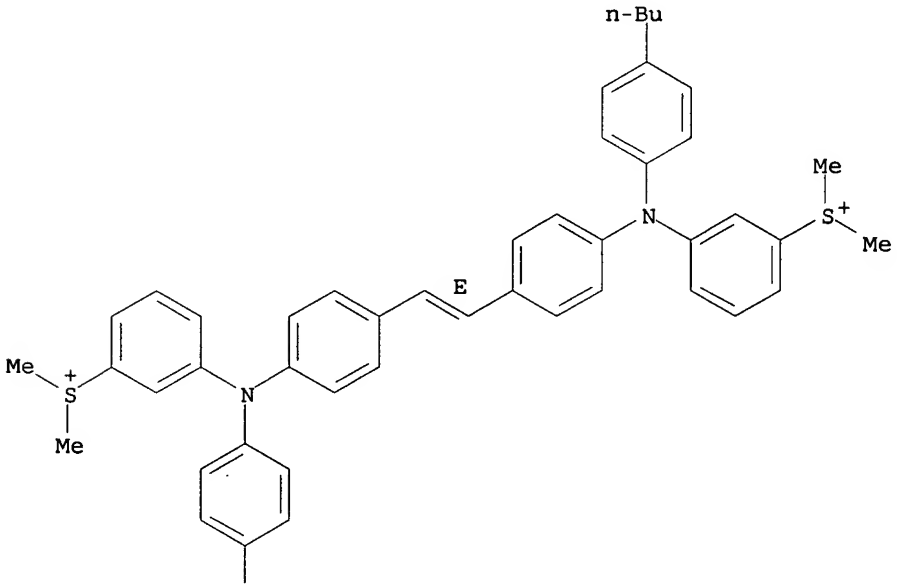
RN 470483-24-0 HCAPLUS
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis[dimethyl-, salt with trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 470483-23-9
CMF C50 H56 N2 S2

Double bond geometry as shown.

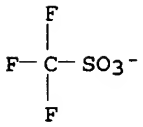
PAGE 1-A



PAGE 2-A

CM 2

CRN 37181-39-8
CMF C F3 O3 S



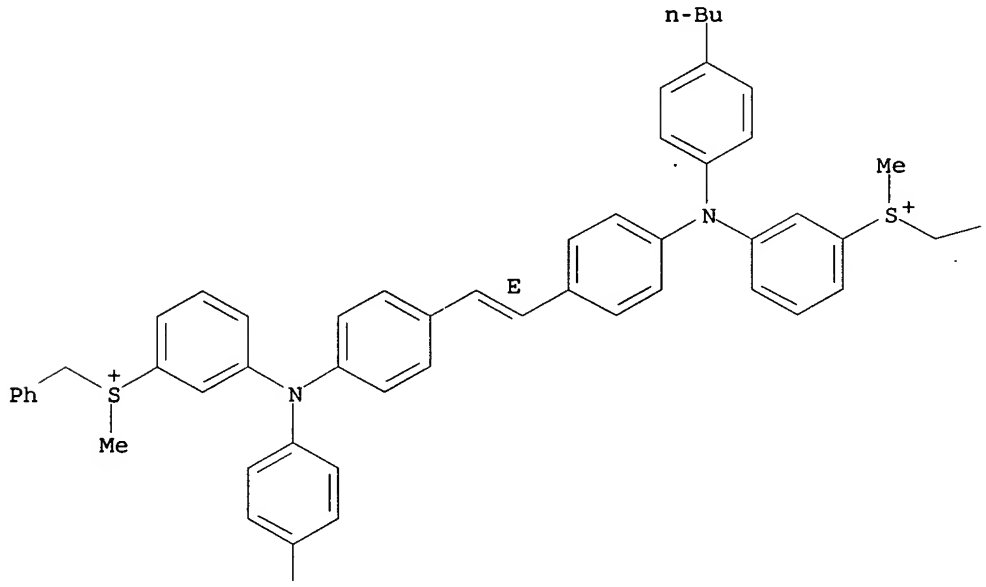
RN 470483-26-2 HCAPLUS
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis[methyl(phenylmethyl)-, salt with trifluoromethanesulfonic acid (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 470483-25-1
CMF C62 H64 N2 S2

Double bond geometry as shown.

PAGE 1-A

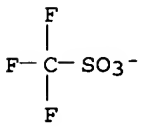


PAGE 1-B

PAGE 2-A

CM 2

CRN 37181-39-8
CMF C F3 O3 S

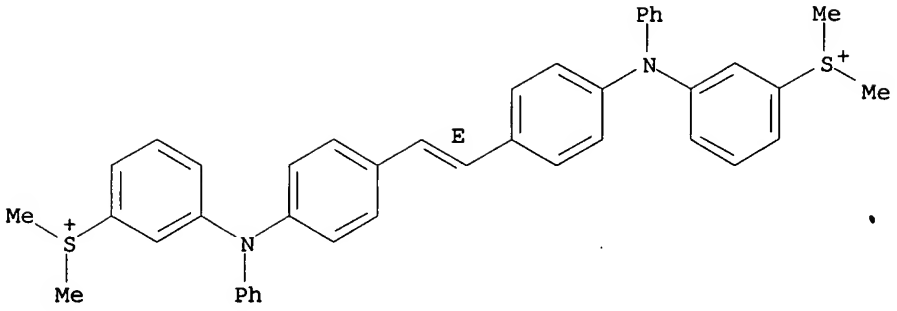


IT **470483-27-3P 470483-28-4P 470483-30-8P**
470483-41-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)
RN 470483-27-3 HCAPLUS
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene(phenylimino)-3,1-phenylene]]bis[dimethyl-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

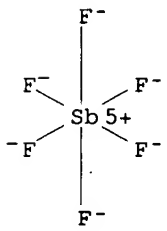
CRN 470483-19-3
CMF C42 H40 N2 S2

Double bond geometry as shown.



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



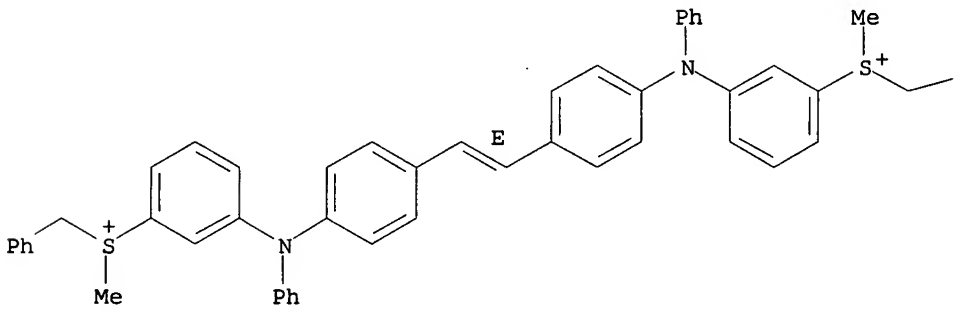
RN 470483-28-4 HCAPLUS
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene(phenylimino)-3,1-phenylene]]bis[methyl(phenylmethyl)-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 470483-21-7
CMF C54 H48 N2 S2

Double bond geometry as shown.

PAGE 1-A

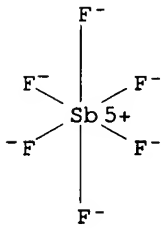


PAGE 1-B

Ph

CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



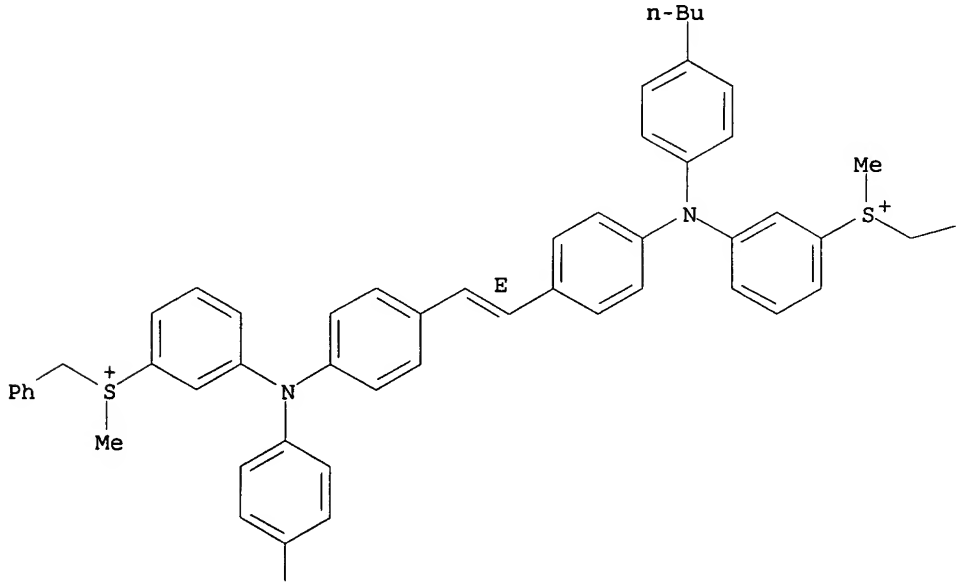
RN 470483-30-8 HCAPLUS
CN Sulfonium, [(1E)-1,2-ethenediylbis[4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis[methyl(phenylmethyl)-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

CRN 470483-25-1
CMF C62 H64 N2 S2

Double bond geometry as shown.

PAGE 1-A

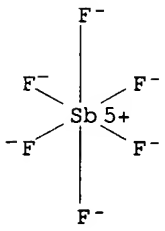


PAGE 1-B

PAGE 2-A

CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



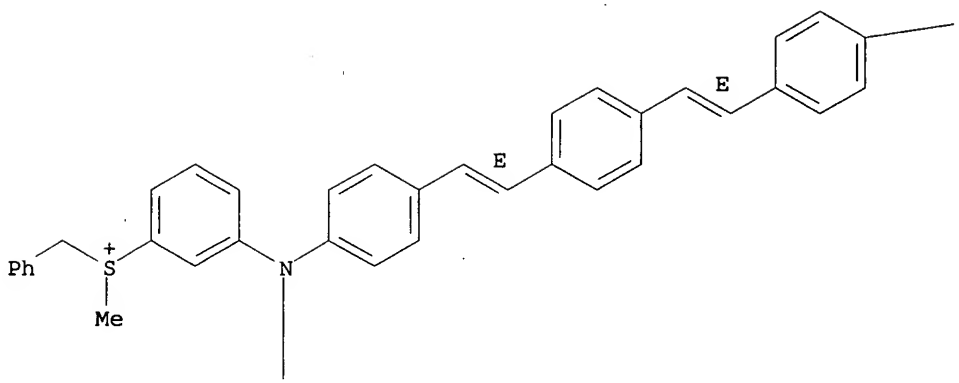
RN 470483-41-1 HCAPLUS
CN Sulfonium, [1,4-phenylenebis[(1E)-2,1-ethenediyl-4,1-phenylene[(4-butylphenyl)imino]-3,1-phenylene]]bis[methyl(phenylmethyl)-, bis[(OC-6-11)-hexafluoroantimonate(1-)] (9CI) (CA INDEX NAME)

CM 1

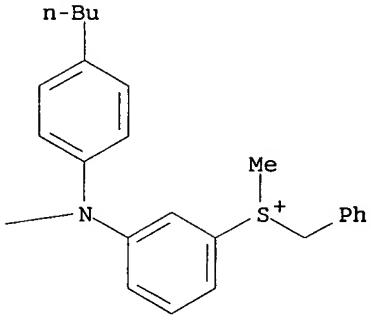
CRN 470483-40-0
CMF C70 H70 N2 S2

Double bond geometry as shown.

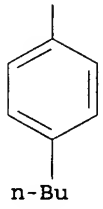
PAGE 1-A



PAGE 1-B

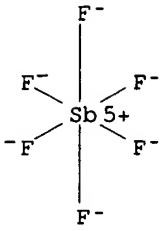


PAGE 2-A



CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



IC ICM F21V009-00
ICS C07C391-00; C07C319-00
CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 35, 73
ST photoacid photoradical generator multiphoton absorbing chromophore; **photoresist** multiphoton absorbing chromophore
IT Multiphoton absorption
Photoresists
Two-photon absorption
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)
IT **470483-29-5P**
RL: CAT (Catalyst use); CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)
IT **470483-39-7P**
RL: CAT (Catalyst use); RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)
IT **470483-49-9P 470483-51-3P**
RL: CAT (Catalyst use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)
IT 104-36-9P, 1,4-Dibutoxybenzene 699-20-7P 1703-46-4P, 4-N,N-Dimethylaminobenzylalcohol 3752-97-4P, 2,5-Bis-(chloromethyl)-1,4-dimethoxybenzene 4546-04-7P, Tetraethyl p-xylylene bisphosphonate 5736-88-9P, 4-Butoxybenzaldehyde 10602-01-4P, 2-p-Bromophenyl-1,3-dioxolane 18869-30-2P, trans-4,4'-Dibromostilbene 19900-52-8P 33733-73-2P, 3-Bromothioanisole 34678-70-1P 35168-62-8P 35335-17-2P 52089-10-8P 53606-10-3P 58358-55-7P 60491-94-3P 90134-10-4P, 4-N,N-Dibutylaminobenzaldehyde 121392-35-6P 124538-01-8P 128133-75-5P, 3-Bromophenyl benzyl sulfide 131719-50-1P 137734-05-5P 197638-83-8P 229494-69-3P 295806-73-4P 295806-74-5P 346691-69-8P 406724-66-1P, 3-Methylthiotriphenylamine 406724-67-2P, 3-Benzylthiotriphenylamine 470483-09-1P 470483-11-5P **470483-13-7P 470483-14-8P 470483-16-0P 470483-18-2P** 470483-31-9P **470483-32-0P 470483-33-1P** 470483-34-2P 470483-35-3P 470483-36-4P 470483-37-5P 470483-42-2P 470483-43-3P 470483-44-4P 470483-45-5P **470483-46-6P 470483-47-7P**

470483-52-4P 470483-56-8P 470483-57-9P 470483-58-0P
470483-59-1P 470483-60-4P **470483-61-5P**
470483-62-6P 470483-63-7P 470483-64-8P
470483-67-1P 470483-70-6P 470483-74-0P 470483-75-1P
470483-77-3P 470483-78-4P 470483-79-5P 470483-80-8P
470483-83-1P 470483-84-2P 470483-85-3P 470483-88-6P
470483-89-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

IT 406724-69-4P, 3-(N,N-Diphenyl)amino]phenyl dimethyl sulfonium trifluoromethanesulfonate **470483-20-6P**
470483-22-8P 470483-24-0P 470483-26-2P
470483-54-6P 470483-66-0P
RL: RCT (Reactant); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

IT 156663-46-6P 406724-70-7P, [3-(N,N-Diphenyl)amino]phenyl dimethyl sulfonium hexafluorophosphate 406724-71-8P, 3-(N,N-Diphenyl)amino]phenyl dimethyl sulfonium hexafluoroantimonate 406724-74-1P, 3-(N,N-Diphenyl)amino]phenyl benzyl methyl sulfonium hexafluoroantimonate **470483-27-3P**
470483-28-4P 470483-30-8P 470483-41-1P
470483-55-7P 470483-69-3P 470483-73-9P 470483-82-0P
470483-87-5P 470483-90-0P 470483-91-1P
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(photoacid and photoradical generators with multiphoton-absorbing chromophores and their patterning and use)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 18 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:752275 HCAPLUS
DOCUMENT NUMBER: 137:286484
TITLE: Thermal switchable composition and imaging member containing polymethine IR dye and methods of imaging and printing
INVENTOR(S): Zheng, Shiying; Wang, Ruizheng; Williams, Kevin Wallace
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1245383	A2	20021002	EP 2002-76063	20020318
EP 1245383	A3	20040728		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002197563	A1	20021226	US 2001-819974	20010618

				0328
US 6623908	B2	20030923		
JP 2002356074	A2	20021210	JP 2002-85855	
				2002
				0326
PRIORITY APPLN. INFO.:			US 2001-819974	A
				2001
				0328

AB The present invention relates to thermal imaging composition and to lithog. imaging member, such as a neg.-working printing plate or on-press cylinder. The imaging layer comprises a thermally sensitive ionomer (charged polymer) and a photothermal conversion material that is a bis(aminoaryl)polymethine dye that is soluble in water or a water-miscible organic solvent, and that has a λmax > 700 nm as measured in water or the water-miscible organic solvent.

IT **463966-37-2P 463966-39-4P 463966-41-8P**
463966-43-0P
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermal switchable composition and imaging member containing polymethine IR dye for imaging and printing)

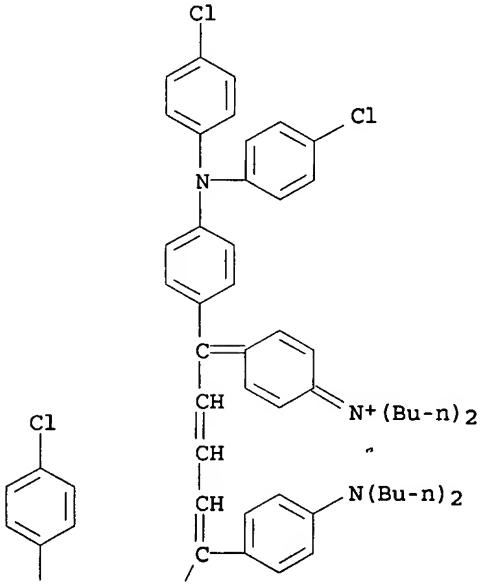
RN 463966-37-2 HCAPLUS

CN 1-Butanaminium, N-[4-[1,5-bis[4-[bis(4-chlorophenyl)amino]phenyl]-5-[4-(dibutylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-N-butyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

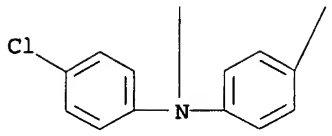
CM 1

CRN 463966-36-1
CMF C69 H71 Cl4 N4

PAGE 1-A

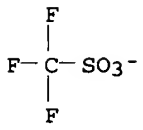


PAGE 2-A



CM 2

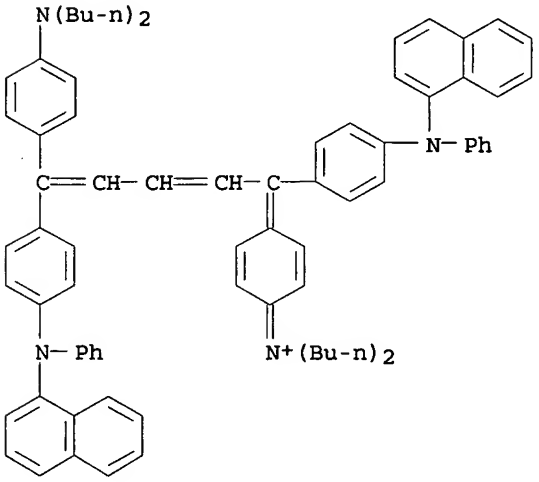
CRN 37181-39-8
CMF C F3 O3 S



RN 463966-39-4 HCAPLUS
CN 1-Butanaminium, N-butyl-N-[4-[5-[4-(dibutylamino)phenyl]-1,5-bis[4-(1-naphthalenylphenylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

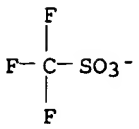
CM 1

CRN 463966-38-3
CMF C77 H79 N4



CM 2

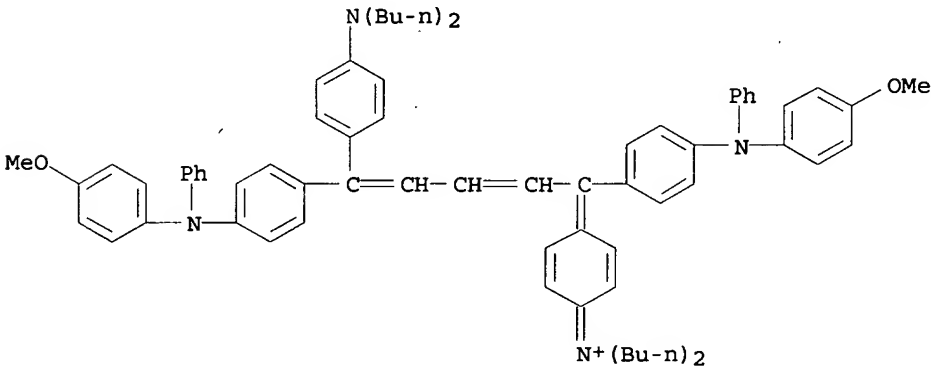
CRN 37181-39-8
CMF C F3 O3 S



RN 463966-41-8 HCAPLUS
CN 1-Butanaminium, N-butyl-N-[4-[5-[4-(dibutylamino)phenyl]-1,5-bis[4-[(4-methoxyphenyl)phenylamino]phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

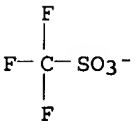
CM 1

CRN 463966-40-7
CMF C71 H79 N4 O2



CM 2

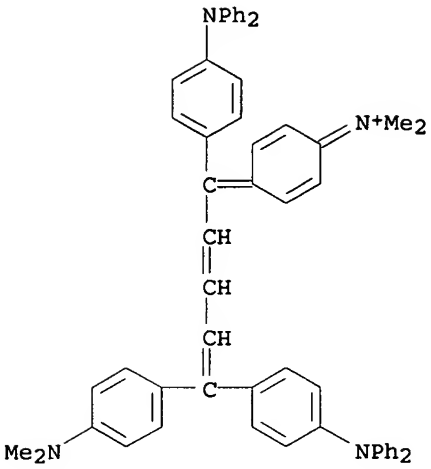
CRN 37181-39-8
CMF C F3 O3 S



RN 463966-43-0 HCAPLUS
CN Methanaminium, N-[4-[5-[4-(dimethylamino)phenyl]-1,5-bis[4-(diphenylamino)phenyl]-2,4-pentadienylidene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, salt with trifluoromethanesulfonic acid (1:1) (9CI) (CA INDEX NAME)

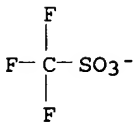
CM 1

CRN 463966-42-9
CMF C57 H51 N4



CM 2

CRN 37181-39-8
CMF C F3 O3 S



IC ICM B41C001-10
ICS B41M005-36
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT 100237-71-6P 463966-33-8P 463966-35-0P **463966-37-2P** **463966-39-4P** **463966-41-8P** **463966-43-0P**
RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(thermal switchable composition and imaging member containing polymethine IR dye for imaging and printing)

L74 ANSWER 19 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:688488 HCAPLUS
DOCUMENT NUMBER: 137:192578
TITLE: **Electronic device** and method of manufacturing the same
INVENTOR(S): Sakurai, Masatoshi; Naito, Katsuyuki
PATENT ASSIGNEE(S): Kabushiki Kaisha Toshiba, Japan
SOURCE: U.S., 21 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6447879	B1	20020910	US 1997-928408	1997 0912

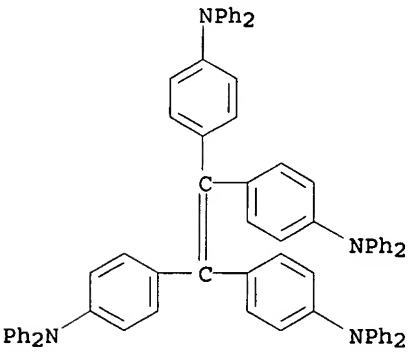
JP 10150234	A2	19980602	JP 1997-236007	1997 0901
US 2003087064	A1	20030508	US 2002-190477	2002 0709
US 6783796	B2	20040831		
PRIORITY APPLN. INFO.:			JP 1996-245047	A 1996 0917
			US 1997-928408	A3 1997 0912

AB An organic film **electronic device** is described comprising a first electrode, a layer formed on the first electrode and containing an organic material, and a second electrode formed on the organic material containing layer, wherein the organic material containing layer has an interface to an adjacent layer comprising an aggregation of dendritic structures with a cross-section of a portion of the interface having contour shape of Hausdorff dimension D = 1.5-2 at a scale length of 10 μm. An organic solar cell is also described comprising a first electrode; a layer formed on the first electrode and containing an organic material; and a second electrode formed on the organic material- containing layer, wherein the organic material- containing layer contains first and second organic layers having a continuous interface between the first and second organic layers, wherein the contour shape of a section of the interface has Hausdorff dimension D = 1.7-2.0 at a scale length of 100 nm, and wherein the organic material containing layer adsorbs or emits electrons in the interface. An organic **LED** and a gel actuator are also described.

IT **148044-14-8**
RL: DEV (Device component use); USES (Uses)
(organic film **electronic device**)

RN 148044-14-8 HCAPLUS

CN Benzenamine, 4,4',4'',4'''-(1,2-ethenediylidene)tetrakis[N,N-diphenyl- (9CI) (CA INDEX NAME)



IC ICM B32B003-00
ICS H05B033-00; H01L031-00; H01M006-00

INCL 428161000

CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 76

ST org film solar cell **light emitting diode** gel actuator

IT Actuators

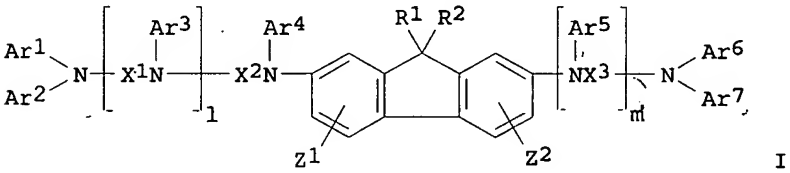
(gel; organic film **electronic device**)
IT Electroluminescent **devices**
Solar cells
(organic film **electronic device**)
IT Poly(arylenealkenylenes)
RL: DEV (Device component use); USES (Uses)
(organic film **electronic device**)
IT 1661-03-6, Magnesium phthalocyanine 2085-33-8, AlQ3 9002-89-5, Polyvinyl alcohol 9003-01-4, Polyacrylic acid 30604-81-0, Polypyrrole 139451-58-4 **148044-14-8**
RL: DEV (Device component use); USES (Uses)
(organic film **electronic device**)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 20 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:603530 HCAPLUS
DOCUMENT NUMBER: 135:187795
TITLE: New amine compound for organic electroluminescent device showing longer luminescent lifetime and excellent durability
INVENTOR(S): Shimamura, Takehiko; Nakatsuka, Masakatsu; Ishida, Tsutomu
PATENT ASSIGNEE(S): Mitsui Chemicals Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 75 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001226331	A2	20010821	JP 2000-34477	2000 0214

PRIORITY APPLN. INFO.: JP 2000-34477 2000 0214

OTHER SOURCE(S): MARPAT 135:187795
GI

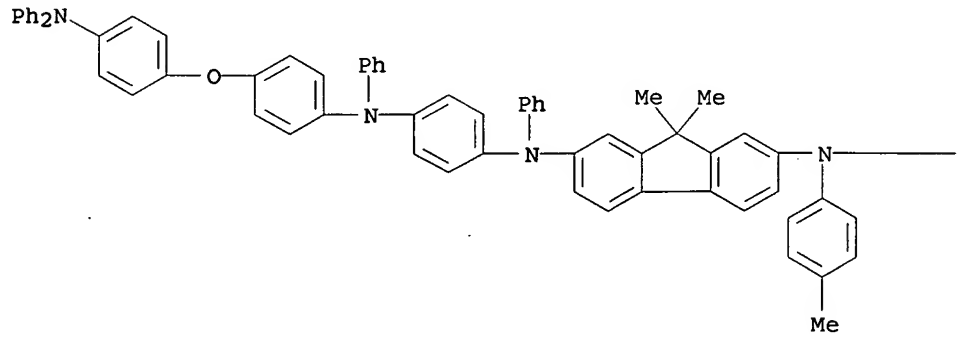


I

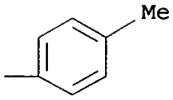
AB The new amine compound is represented by a general formula I (Ar1-7 = aryl; R1, R2 = H, alkyl, aryl, aralkyl; Z1, Z2 = H, halo, alkyl, alkoxy, aryl; X1-3 = arylene; l, m = 0, 1) and synthesized. The amine compound is suitable as a pos. hole injection transport material in an organic electroluminescent display device.
IT **354987-53-4 354987-54-5 354987-73-8**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(amine compound for organic electroluminescent device showing longer luminescent lifetime and excellent durability)
RN 354987-53-4 HCAPLUS

CN 9H-Fluorene-2,7-diamine, N-[4-[[4-[4-(diphenylamino)phenoxy]phenyl]phenylamino]phenyl]-9,9-dimethyl-N',N'-bis(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



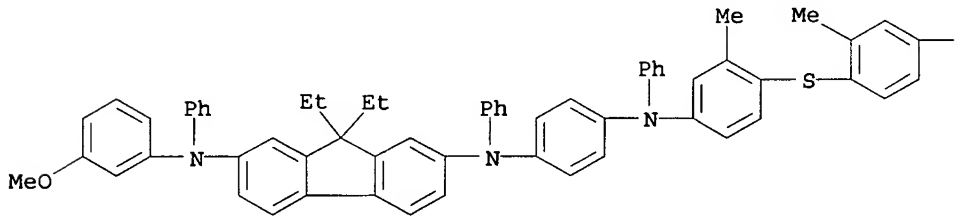
PAGE 1-B



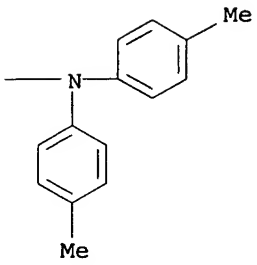
RN 354987-54-5 HCAPLUS

CN 9H-Fluorene-2,7-diamine, N-[4-[[4-[[4-[bis(4-methylphenyl)amino]-2-methylphenyl]thio]-3-methylphenyl]phenylamino]phenyl]-9,9-diethyl-N'-(3-methoxyphenyl)-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

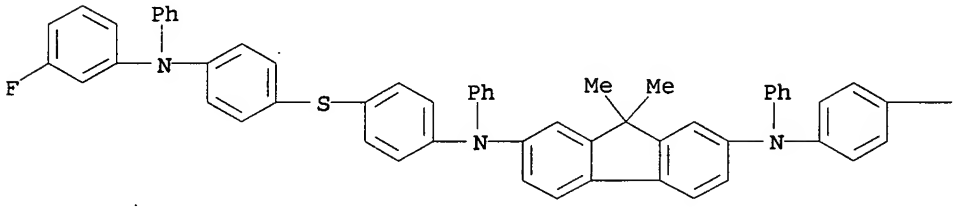


PAGE 1-B

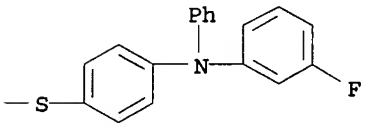


RN 354987-73-8 HCAPLUS
CN 9H-Fluorene-2,7-diamine, N,N'-bis[4-[[4-[(3-fluorophenyl)phenylamino]phenyl]thio]phenyl]-9,9-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C07C211-61
ICS C07C217-94; C07D209-86; C07D213-74; C07D265-38; C07D279-26; C07D333-36; C09K011-06; H05B033-14; H05B033-22
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 73
IT 354987-33-0 354987-34-1 354987-35-2 354987-37-4
354987-38-5 354987-40-9 354987-41-0 354987-44-3
354987-45-4 354987-48-7 354987-49-8 354987-51-2
354987-53-4 354987-54-5 354987-56-7
354987-57-8 354987-59-0 354987-60-3 354987-61-4
354987-63-6 354987-64-7 354987-65-8 354987-66-9
354987-69-2 354987-70-5 354987-72-7 **354987-73-8**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(amine compound for organic electroluminescent device showing longer luminescent lifetime and excellent durability)

L74 ANSWER 21 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:169755 HCAPLUS
DOCUMENT NUMBER: 134:359245
TITLE: Polymeric **light-emitting diodes** based on poly(p-phenylene ethynylene), poly(triphenyldiamine), and

spiroquinoxaline

AUTHOR(S): Schmitz, Christoph; Posch, Peter; Thelakkat, Mukundan; Schmidt, Hans-Werner; Montali, Andrea; Feldman, Kirill; Smith, Paul; Weder, Christoph

CORPORATE SOURCE: Makromolekulare Chemie I and Bayreuther Institut fur Makromolekulforschung (BIMF) Universitat Bayreuth, Bayreuth, D-95440, Germany

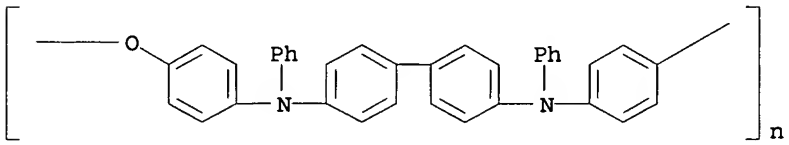
SOURCE: Advanced Functional Materials (2001), 11(1), 41-46
CODEN: AFMDC6; ISSN: 1616-301X
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Polymeric **light-emitting diodes** (**LEDs**) based on octyloxy-substituted poly(p-phenylene ethynylene) EHO-OPPE as emitter material in combination with poly(triphenyldiamine) as hole transport material were demonstrated. Different device configurations such as single-layer devices, two-layer devices, and blend devices were studied. Improvement and optimization of the devices were attained through careful design of the device structure and composition The influence of an addnl. **electron transporting** and **hole** blocking **layer** (ETHBL), spiroquinoxaline (spiro-qux), on top of the optimized blend device was studied using a combinatorial method, which allows the preparation of a number of devices characterized by different layer thicknesses in one deposition step. The maximum brightness of the devices increased from 4 cd/m2 for a device of pure EHO-OPPE to 260 cd/m2 in a device with 25% EHO-OPPE + 75% poly(N,N'-diphenylbenzidine di-Ph ether) (poly-TPD) as the emitting/**hole-transporting layer** and an addnl. **electron-transport/hole**-blocking spiro-qux **layer** of 48 nm thickness.

IT **201026-18-8**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(**hole transport layer**; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

RN 201026-18-8 HCAPLUS

CN Poly[oxy-1,4-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 36

ST polyphenyleneethynylene emitter polytriphenyldiamine hole transport **LED**; **light emitting diode** configuration polyacetylene polyamine spiroquinoxaline; hole blocking spiroquinoxaline **LED** polyphenyleneethynylene polytriphenyldiamine; combinatorial method **LED** optimization thickness deposition

IT Polydiacetylenes
RL: DEV (Device component use); PRP (Properties); USES (Uses)

(ethylhexyloxy- and octyloxy-phenylene-group containing; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT **Electroluminescent** devices
(**light-emitting diodes**; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT Vapor deposition process
(of **electron transport** and **hole** blocking **layer**; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT Electron transport
Glass substrates
Hole transport
(optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT Polyethers, properties
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(polyamine-; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT Polyamines
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(polyether-; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT Coating process
(spin; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT 173428-83-6 174592-87-1
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(emitter layer; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT **201026-18-8**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(**hole transport layer**; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT 7429-90-5, Aluminum, uses 50926-11-9, ITO
RL: DEV (Device component use); USES (Uses)
(optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking **layers**)

IT 227099-97-0
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(spiroquinoxaline, hole blocking layer; optimization of device structures of **LEDs** based on poly(p-phenylene ethynylene) emitter poly(triphenyldiamine) hole **transport** and spiroquinoxaline **hole** blocking

layers)
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 22 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:159574 HCAPLUS
DOCUMENT NUMBER: 134:214889
TITLE: Electrophotographic photoreceptors for short-wavelength laser and electrophotographic apparatus
INVENTOR(S): Nukada, Katsuki; Yagi, Shigeru
PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001060010	A2	20010306	JP 1999-236557	1999 0824
PRIORITY APPLN. INFO.:			JP 1999-236557	1999 0824

GI

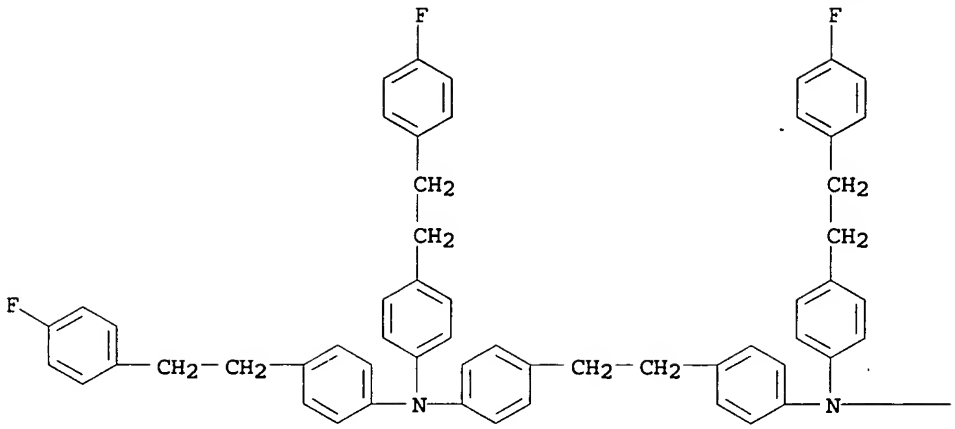
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The photoreceptor, which shows high-speed response, durability in repeated use, and environmental stability, has a layer containing a charge-generating material which contains non-single-crystal materials comprising H, group III elements, and group V elements. Also claimed is an electrophotog. apparatus having the photoreceptor and an exposure means which emits coherent light of ≤600 nm. The photoreceptor may addnl. contain organic charge-transporting materials.

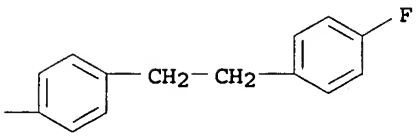
IT **270907-45-4 270907-46-5 270907-52-3 270907-59-0**
RL: DEV (Device component use); USES (Uses)
(charge-transporting agent; electrophotog. photoreceptors for short-wavelength laser having charge-generating non-single-crystal semiconductor layer containing H and group III and V elements)

RN 270907-45-4 HCAPLUS
CN Benzenamine, 4,4'-(1,2-ethanediyl)bis[N,N-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

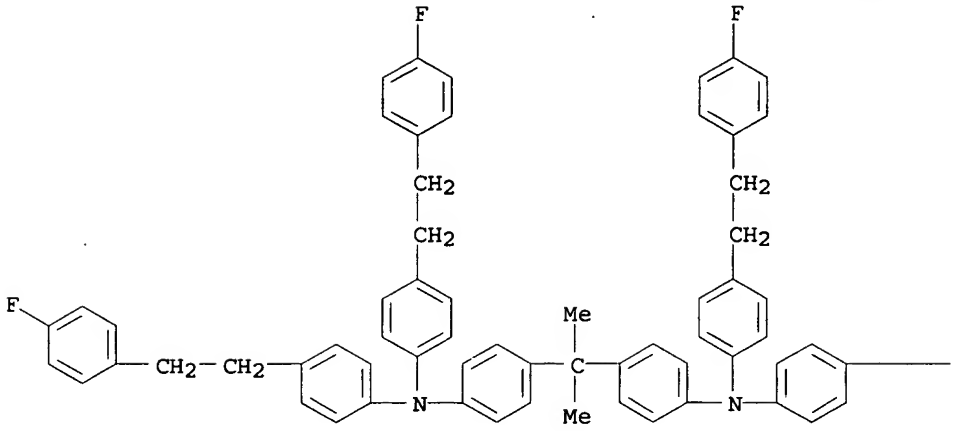


PAGE 1-B

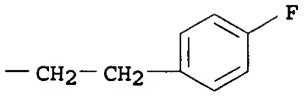


RN 270907-46-5 HCAPLUS
CN Benzenamine, 4,4'-(1-methylethylidene)bis[N,N-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

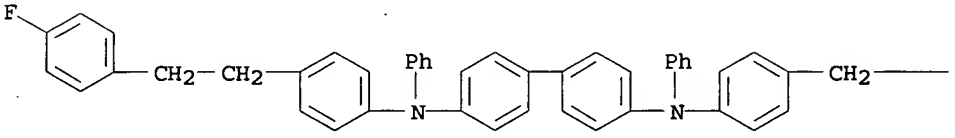


PAGE 1-B

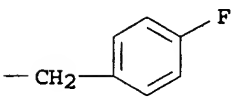


RN 270907-52-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



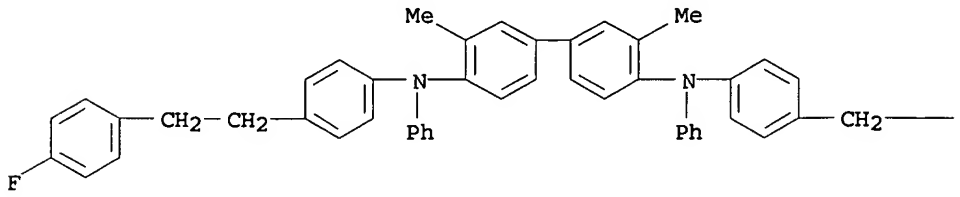
PAGE 1-B



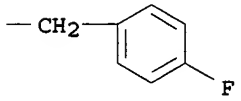
RN 270907-59-0 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]-3,3'-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-08
ICS G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 76

IT Electrophotographic apparatus
Electrophotographic **photoconductors** (photoreceptors)
Semiconductor films
(electrophotog. photoreceptors for short-wavelength laser having charge-generating non-single-crystal semiconductor layer containing H and group III and V elements)

IT 1159-53-1 15008-36-3 20441-06-9 58473-78-2 68582-40-1
96565-25-2 115310-63-9 122738-25-4 161114-55-2 184583-44-6
184583-47-9 184583-53-7 189150-42-3 216018-13-2
258501-25-6 259131-89-0 270907-44-3 **270907-45-4**
270907-46-5 270907-47-6 270907-48-7
270907-52-3 **270907-59-0** 270907-61-4
270907-68-1 328933-21-7 328933-22-8 328933-23-9
328933-27-3 328933-31-9 328933-34-2 328933-37-5
328933-39-7 328933-41-1
RL: DEV (Device component use); USES (Uses)
(charge-transporting agent; electrophotog. photoreceptors for short-wavelength laser having charge-generating non-single-crystal semiconductor layer containing H and group III and V elements)

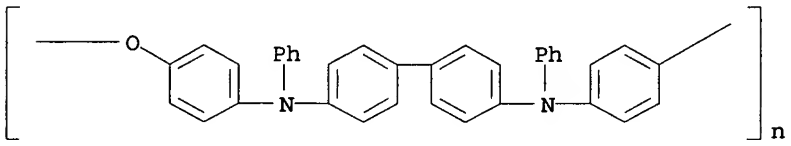
L74 ANSWER 23 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:462245 HCAPLUS
DOCUMENT NUMBER: 134:116490
TITLE: Combinatorial methods for screening and optimization of materials and device parameters in organic **light-emitting diodes**
AUTHOR(S): Schmidt, Hans-Werner; Schmitz, Christoph; Poesch, Peter; Thelakkat, Mukundan
CORPORATE SOURCE: Lehrstuhl Makromolekulare Chem. I und Bayreuther Inst. Makromolekulforschung (BIMF), Univ. Bayreuth, Bayreuth, Germany

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1999), 3797(Organic Light-Emitting Materials and Devices III), 58-65
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

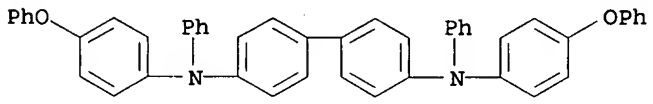
AB An exptl. set-up was used to optimize the **layer** thickness of **hole transport** materials and **electron** transport/emitter material in multi-layer **light emitting diodes** by combinatorial methods. The method is based on a movable mask/shutter technique and simultaneous evaporation of organic mols. resulting in linear gradients of layer thickness. This allows the preparation of different devices in one single experiment under identical conditions. The role of the Alq3 layer thickness on photometric and power efficiency in two layer devices was assessed using various alkoxytriphenyldiamine (TPD) derivs. as hole transport material at a constant thickness. Low mol. weight TPDs, dimethoxytriphenyldiamine, diphenoxyphenyl-triphenyldiamine, diphenanthrentriphenyldiamine, and a polymeric TPD, triphenyldiaminepolyether, were used. Both photometric and power efficiency depend considerably on the thickness of the Alq3 layer. The efficiency dependence on both the TPD and Alq3 layer thickness was studied simultaneously by preparing a landscape library with two orthogonal linear gradients of TPD and Alq3. The device efficiency depends on both TPD and Alq3 layer thickness and on the total thickness of the organic layer.

IT **201026-18-8 239113-52-1**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(combinatorial method for screening of polyether-phenylamine and Alq3 materials and device parameters for organic **LEDs**)

RN 201026-18-8 HCAPLUS
CN Poly[oxy-1,4-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 239113-52-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-phenoxyphenyl)-N,N'-diphenyl- (9CI) (CA INDEX NAME)



CC 37-5 (Plastics Manufacture and Processing)
Section cross-reference(s): 73
ST triphenylamine deriv layer thickness photometric efficiency screening; combinatorial library screening emitter efficiency **LED**
IT Electron transport
HOMO (molecular orbital)
Hole transport

Oxidation potential
Vapor deposition process
(combinatorial method for screening of polyether-phenylamine and Alq3 materials and device parameters for organic **LEDs**)

IT Combinatorial library
(landscape thickness gradient; combinatorial method for screening of polyether-phenylamine and Alq3 materials and device parameters for organic **LEDs**)

IT **Electroluminescent** devices
(organic; combinatorial method for screening of polyether-phenylamine and Alq3 materials and device parameters for organic **LEDs**)

IT 2085-33-8, Alq3 20441-07-0, N,N'-Bis(4-methoxyphenyl)-N,N'-diphenyl-{1,1'-biphenyl}-4,4'-diamine **201026-18-8** **239113-52-1** 284032-01-5
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(combinatorial method for screening of polyether-phenylamine and Alq3 materials and device parameters for organic **LEDs**)

REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 24 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:357258 HCAPLUS
DOCUMENT NUMBER: 133:10983
TITLE: Electrophotographic development and apparatus for producing high resolution image
INVENTOR(S): Yoneyama, Hiroto; Yamazaki, Kazuo; Ishii, Toru; Nukada, Katsuki
PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 53 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

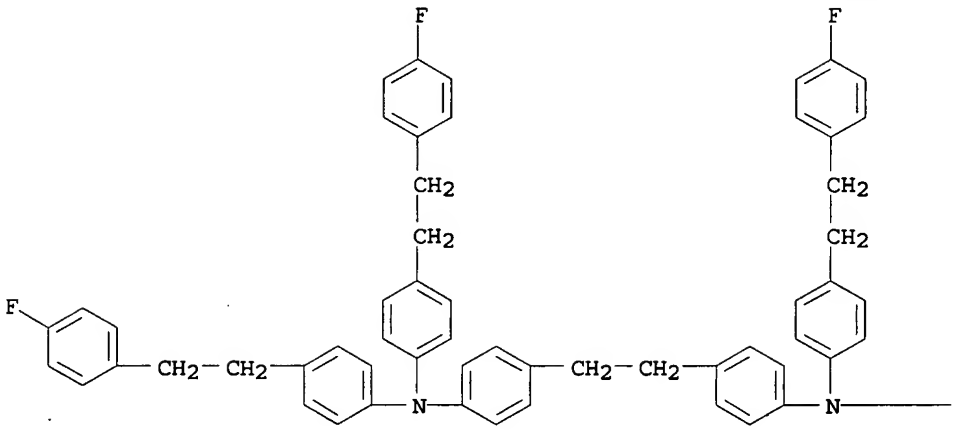
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000147874	A2	20000526	JP 1999-242229	19990827
JP 3566594	B2	20040915		
PRIORITY APPLN. INFO.:			JP 1998-257935 A	19980911

OTHER SOURCE(S): MARPAT 133:10983
AB The electrophotog. development utilizes the exposure light of ≤600 nm wavelength, wherein a charge transport layer satisfies a relation, NF ≤ 0.75+NA wherein NA is an absorption photon number and NF is a fluorescence photon number The charge transport layer contains a specific triphenylamine compound or a specific triphenylmethane compound

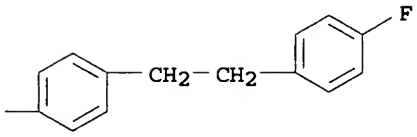
IT **270907-45-4** **270907-46-5** **270907-52-3** **270907-59-0**
RL: DEV (Device component use); USES (Uses)
(in charge transport layer of electrophotog. **photoconductor** for producing high resolution image)

RN 270907-45-4 HCAPLUS
CN Benzenamine, 4,4'-(1,2-ethanediyl)bis[N,N-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

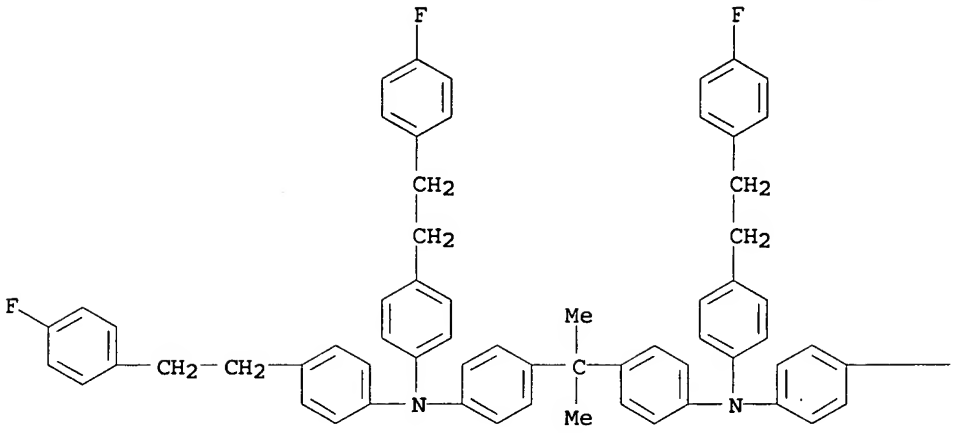


PAGE 1-B

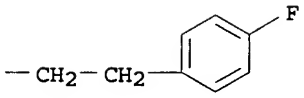


RN 270907-46-5 HCAPLUS
CN Benzenamine, 4,4'-(1-methylethylidene)bis[N,N-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

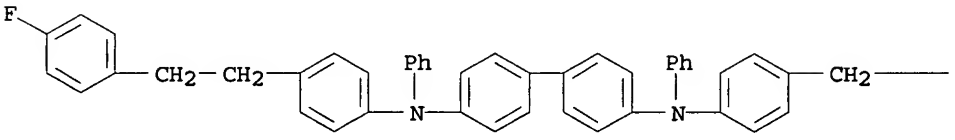


PAGE 1-B

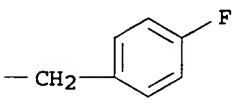


RN 270907-52-3 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



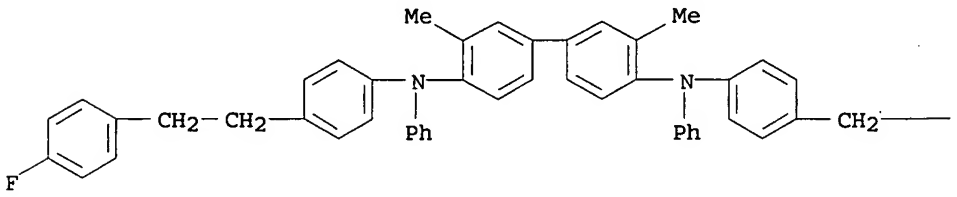
PAGE 1-B



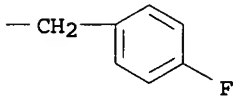
RN 270907-59-0 HCAPLUS

CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[2-(4-fluorophenyl)ethyl]phenyl]-3,3'-dimethyl-N,N'-diphenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G015-04
ICS B41J002-44; G03G005-06; G03G005-07; G03G021-14
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT 82-90-6 1159-53-1 15008-36-3 58473-78-2 65181-78-4
68582-40-1 83890-47-5 89114-90-9 95993-52-5 96565-25-2
115310-63-9 119344-18-2 122738-25-4 151026-65-2
161114-55-2 184583-44-6 184583-53-7 252920-13-1
252920-14-2 258501-25-6 270907-43-2 270907-44-3
270907-45-4 **270907-46-5** 270907-47-6
270907-48-7 270907-49-8 **270907-52-3**
270907-59-0 270907-61-4 270907-68-1 270907-70-5
270907-72-7 270907-73-8 270907-74-9 270907-75-0
270907-76-1
RL: DEV (Device component use); USES (Uses)
(in charge transport layer of electrophotog.
photoconductor for producing high resolution image)

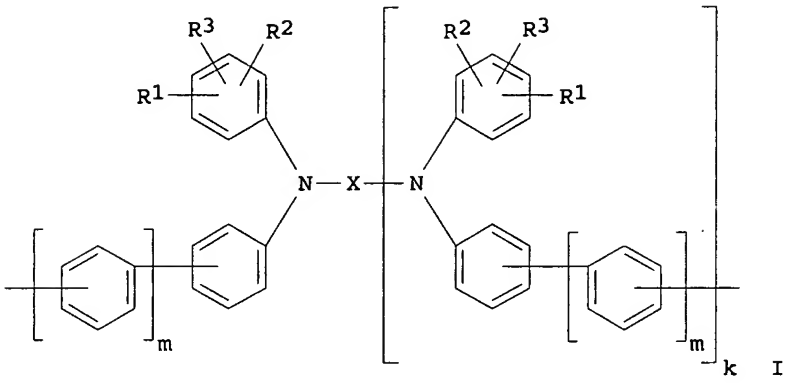
L74 ANSWER 25 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:356236 HCAPLUS
DOCUMENT NUMBER: 133:10969
TITLE: Charge-transporting polyesters and organic **electric devices** and electrophotographic photoreceptors thereof
INVENTOR(S): Nukada, Katsuki; Yamada, Wataru; Ishii, Rie; Seki, Mieko
PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000143786	A2	20000526	JP 1998-320388	

1998
1111

JP 3496541 B2 20040216
PRIORITY APPLN. INFO.: JP 1998-320388
1998
1111

GI



AB The polyesters involve (i) ≥ 1 of a structure shown as CO(T)aA(T)aCO as a dicarboxylic acid component and (ii) ≥ 1 of a structure shown as O(T)bA1(T)bO as a diol component (A, A1 = divalent group shown as arylamine I; R1-R3 = H, halo, alkyl, alkoxy, aryl; X = divalent organic group; a, b, k, m = 0, 1; T = C1-10 divalent hydrocarbon). The **elec. devices** and electrophotog. photoreceptors contain the polyesters in charge-transport films. The photoreceptors have excellent sensitivity and offer stable images.

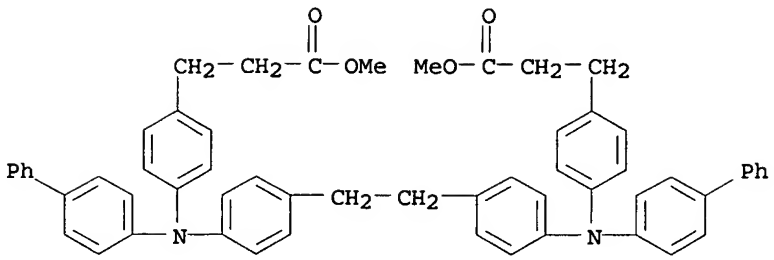
IT **270582-58-6P 270582-59-7P 270582-60-0P**
270582-61-1P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(charge-transporting polyesters with arylamine structures m and organic **elec. devices** and electrophotog. photoreceptors thereof)

RN 270582-58-6 HCAPLUS

CN Benzenepropanoic acid, 4,4'-[1,2-ethanediylbis[4,1-phenylene([1,1'-biphenyl]-4-ylimino)]]bis-, dimethyl ester, polymer with 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[(3,4-dimethylphenyl)imino]]bis[benzeneethanol] (9CI) (CA INDEX NAME)

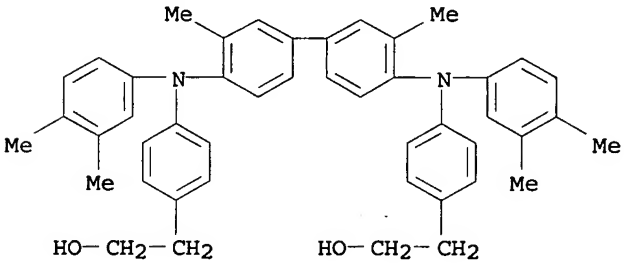
CM 1

CRN 270582-45-1
CMF C58 H52 N2 O4



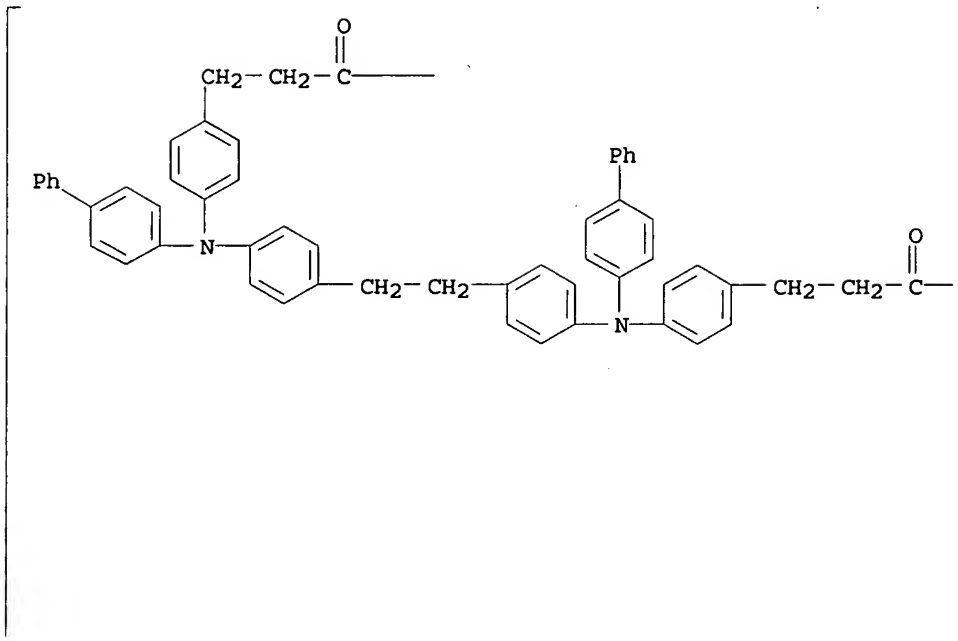
CM 2

CRN 185745-91-9
CMF C46 H48 N2 O2

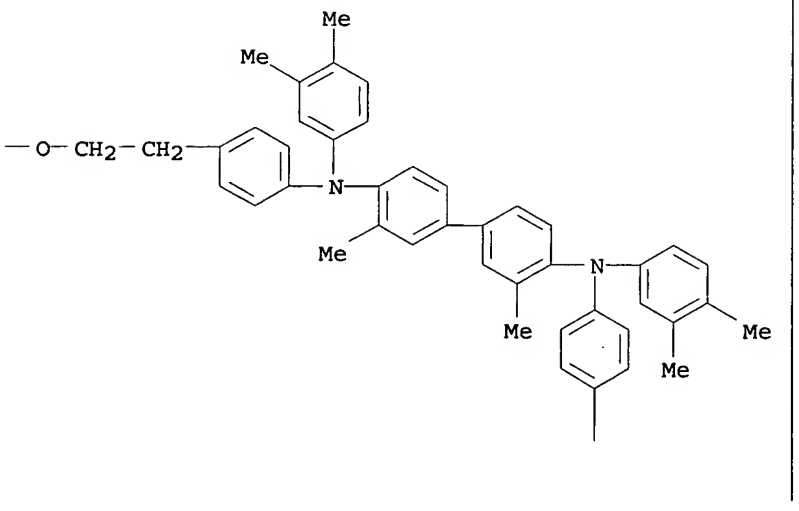


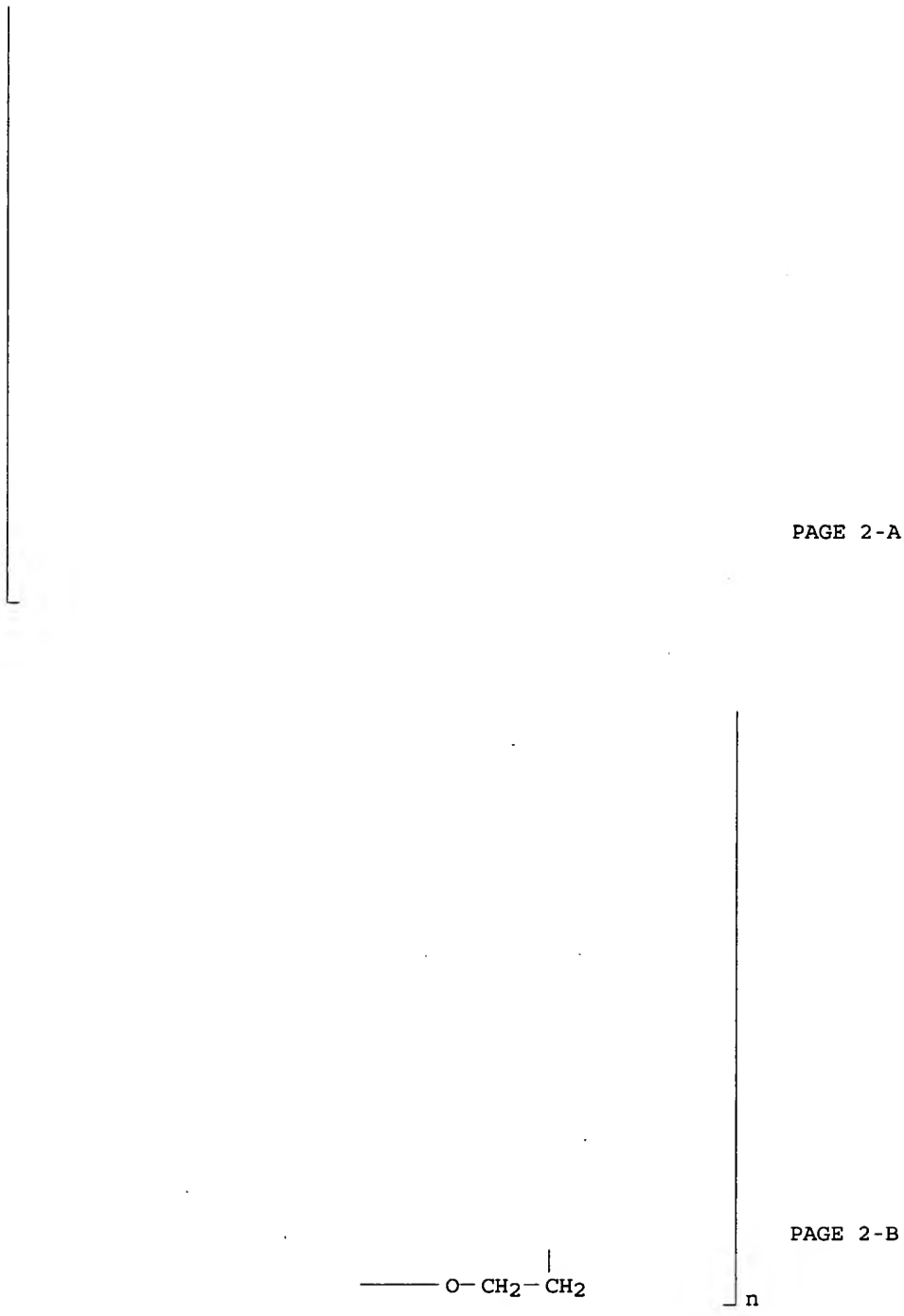
RN 270582-59-7 HCAPLUS
CN Poly[oxy-1,2-ethanediyl-1,4-phenylene[(3,4-dimethylphenyl)imino](3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)[(3,4-dimethylphenyl)imino]-1,4-phenylene-1,2-ethanediyloxy(1-oxo-1,3-propanediyl)-1,4-phenylene([1,1'-biphenyl]-4-ylimino)-1,4-phenylene-1,2-ethanediyl-1,4-phenylene([1,1'-biphenyl]-4-ylimino)-1,4-phenylene(3-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



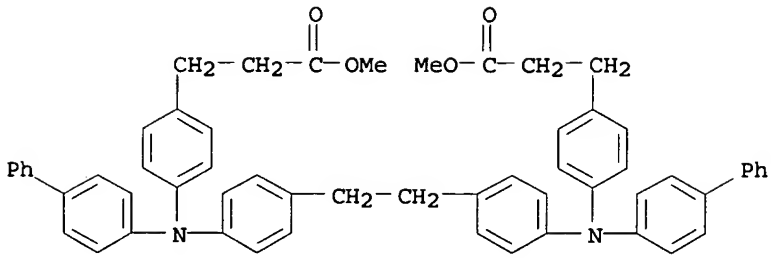


RN 270582-60-0 HCAPLUS
CN Benzenepropanoic acid, 4,4'-[1,2-ethanediylbis[4,1-phenylene([1,1'-biphenyl]-4-ylimino)]]bis-, dimethyl ester, polymer with 4,4'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis[(3,4-dimethylphenyl)imino]]bis[benzenepropanol] (9CI) (CA INDEX NAME)

CM 1

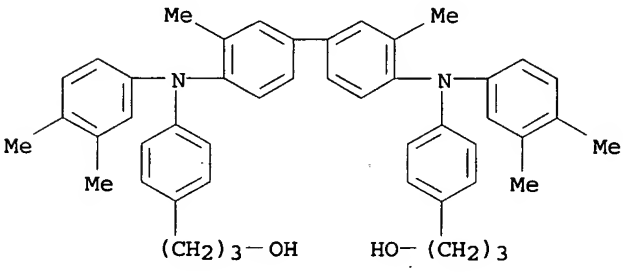
CRN 270582-45-1

CMF C58 H52 N2 O4



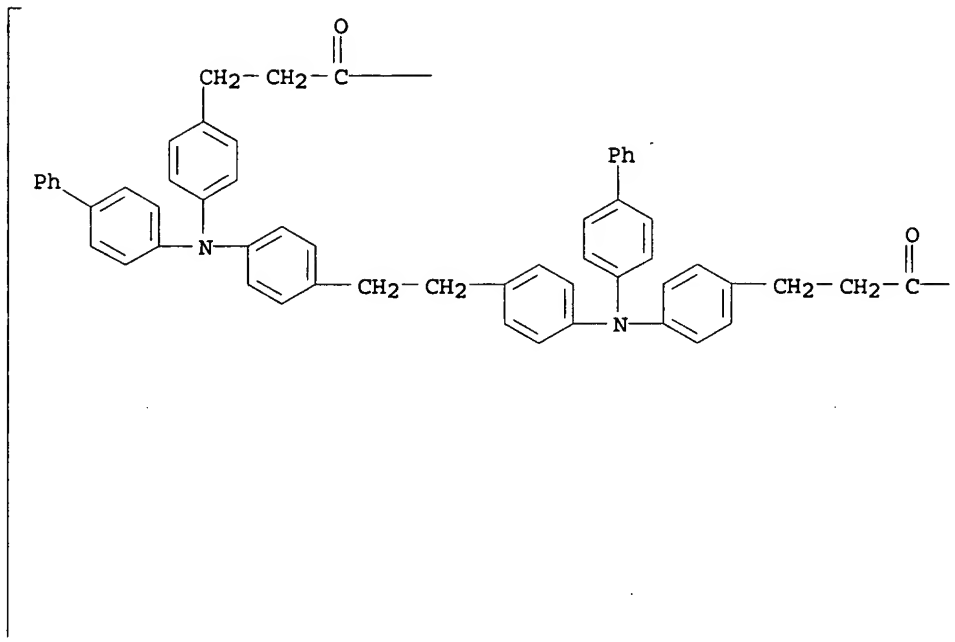
CM 2

CRN 210689-85-3
CMF C48 H52 N2 O2

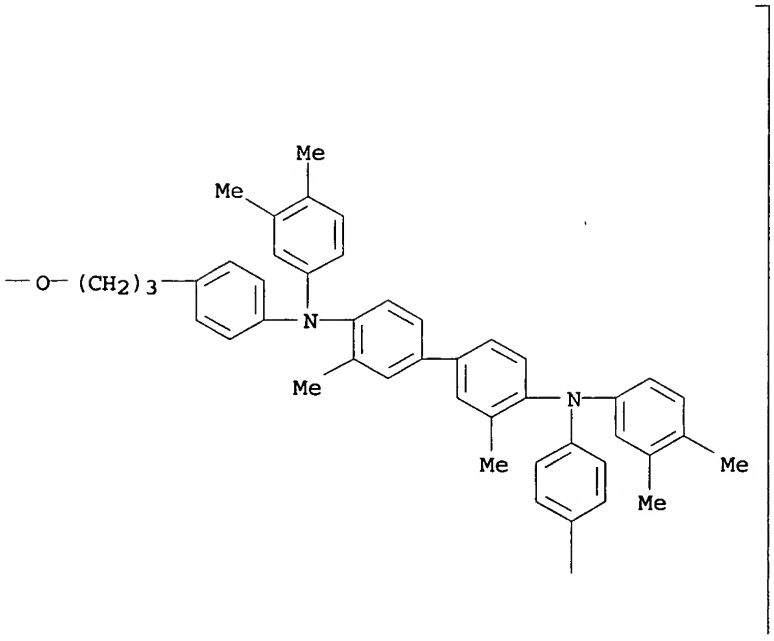


RN 270582-61-1 HCAPLUS
CN Poly[oxy-1,3-propanediyl-1,4-phenylene[(3,4-dimethylphenyl)imino](3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)[(3,4-dimethylphenyl)imino]-1,4-phenylene-1,3-propanediyloxy(1-oxo-1,3-propanediyl)-1,4-phenylene([1,1'-biphenyl]-4-ylimino)-1,4-phenylene-1,2-ethanediyl-1,4-phenylene([1,1'-biphenyl]-4-ylimino)-1,4-phenylene(3-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A

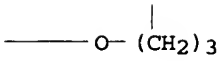


PAGE 1-B



PAGE 2-A

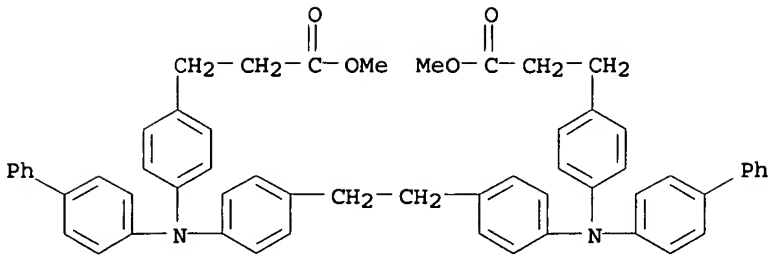
PAGE 2-B



IT **270582-45-1P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(charge-transporting polyesters with arylamine structures m and organic **elec. devices** and electrophotog. photoreceptors thereof)

RN 270582-45-1 HCAPLUS

CN Benzenepropanoic acid, 4,4'-[1,2-ethanediylbis[4,1-phenylene([1,1'-biphenyl]-4-ylimino)]]bis-, dimethyl ester (9CI) (CA INDEX NAME)



IC ICM C08G063-685
ICS G03G005-05; G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

IT Electrophotographic **photoconductors** (photoreceptors)
(charge-transporting polyesters with arylamine structures m and organic **elec. devices** and electrophotog. photoreceptors thereof)

IT Polyesters, preparation
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(charge-transporting polyesters with arylamine structures m and organic **elec. devices** and electrophotog. photoreceptors thereof)

IT 270582-48-4P 270582-49-5P 270582-50-8P 270582-51-9P
270582-52-0P 270582-53-1P 270582-54-2P 270582-55-3P
270582-56-4P 270582-57-5P **270582-58-6P**
270582-59-7P 270582-60-0P 270582-61-1P
270582-62-2P 270582-63-3P 270582-64-4P 270582-65-5P
270582-66-6P 270582-67-7P 270582-68-8P 270582-69-9P
270582-70-2P 270582-71-3P 270582-72-4P 270582-73-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(charge-transporting polyesters with arylamine structures m and organic **elec. devices** and electrophotog. photoreceptors thereof)

IT 174187-73-6P, N,N'-Diphenyl-N,N'-bis[3-[2-(ethoxycarbonyl)ethyl]phenyl]-[1,1'-biphenyl]-4,4'-diamine
174187-76-9P 174406-10-1P, 3,3'-Dimethyl-N,N'-bis(3,4-dimethylphenyl)-N,N'-bis[4-[2-(methoxycarbonyl)ethyl]phenyl]-(1,1'-biphenyl)-4,4'-diamine 174406-13-4P 178611-68-2P
178689-73-1P 185745-91-9P 187880-54-2P 187880-65-5P
210689-85-3P 270582-44-0P **270582-45-1P**
RL: PNU (Preparation, unclassified); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(charge-transporting polyesters with arylamine structures m and organic **elec. devices** and electrophotog. photoreceptors thereof)

IT 95-64-7, 3,4-Xylidine 531-91-9, N,N'-Diphenylbenzidine
1591-31-7, 4-Iodobiphenyl 6622-80-6, 1,2-Bis(4-iodophenyl)ethane
7583-27-9, 4,4'-Diiodo-3,3'-dimethylbiphenyl 19053-14-6, 4,4''-Diiodo[1,1'-:4',1''-terphenyl] 84161-87-5, N,N-Diphenylbenzidine 121269-65-6 174406-11-2, N-(3,4-Dimethylphenyl)-N-[4-[2-(methoxycarbonyl]ethyl]phenyl]amine
174406-12-3 178689-82-2 188541-29-9 270582-46-2
270582-47-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(charge-transporting polyesters with arylamine structures m and organic **elec. devices** and electrophotog. photoreceptors thereof)

L74 ANSWER 26 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:140556 HCAPLUS
DOCUMENT NUMBER: 132:173372
TITLE: Electrophotographic photoreceptor containing arylamine charge-transporting agent with butadiene structure
INVENTOR(S): Mitsumori, Teruyuki
PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
SOURCE: U.S., 30 pp., Cont.-in-part of U.S. 5,804,344.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6030734	A	20000229	US 1998-115537	19980715
JP 09244278	A2	19970919	JP 1996-52964	19960311
JP 3584600	B2	20041104		
US 5804344	A	19980908	US 1997-814359	19970311

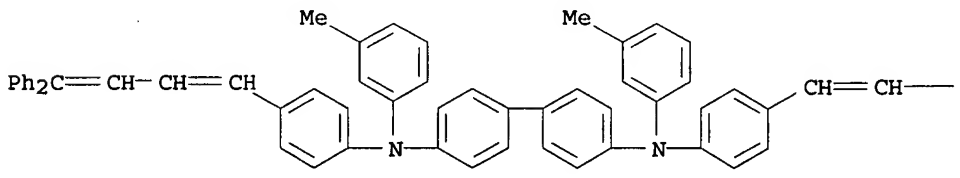
PRIORITY APPLN. INFO.: JP 1996-52964 A 19960311
US 1997-814359 A2 19970311

AB An electrophotog. photoreceptor comprises a photosensitive layer containing a charge-generating agent and a charge-transporting agent on an electroconductive substrate, wherein the charge-transporting agent is an arylamine and has a butadiene structure, and the total of the π electron number and the lone electron number of the nitrogen atoms in the arylamine is at least 60.

IT **197234-73-4 197234-74-5 197234-75-6 197234-76-7 197234-77-8 197234-81-4 197234-83-6 197234-87-0 218276-54-1**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(charge-transporting agent for electrophotog. photoreceptors)

RN 197234-73-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

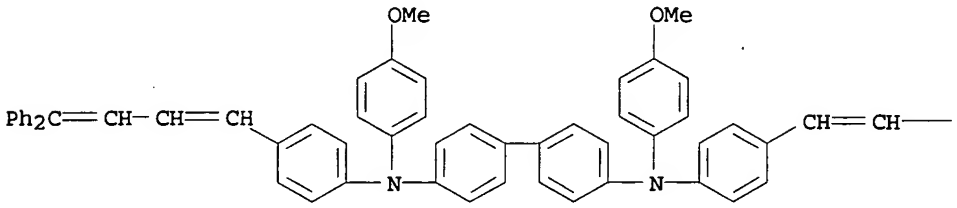


PAGE 1-B

—CH═CPh$_2$

RN 197234-74-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

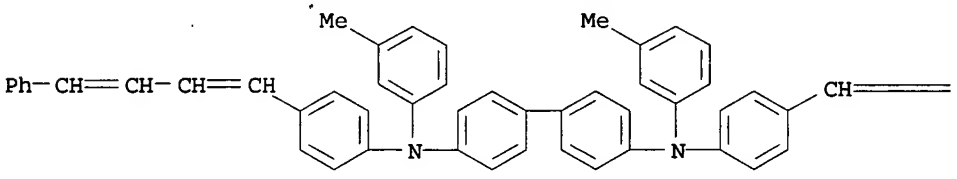


PAGE 1-B

—CH═CPh$_2$

RN 197234-75-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

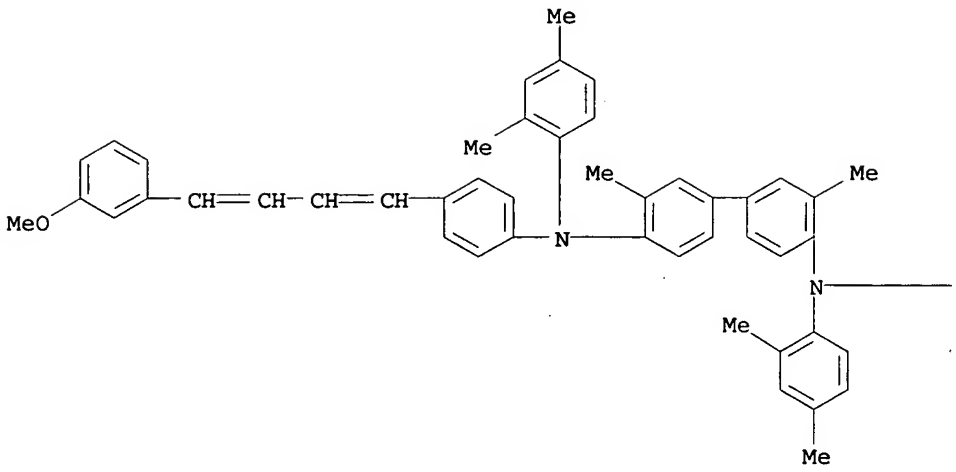


PAGE 1-B

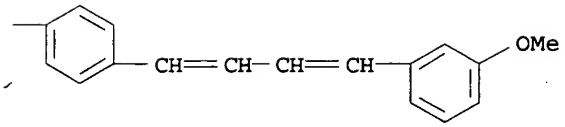
═CH—CH═CH—Ph

RN 197234-76-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N,N'-bis[4-[4-(3-methoxyphenyl)-1,3-butadienyl]phenyl]-3,3'-dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

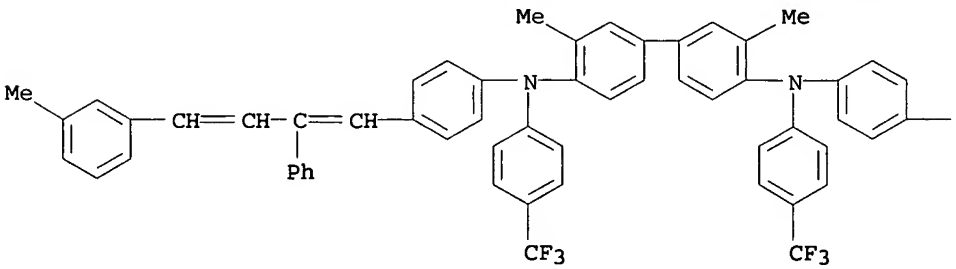


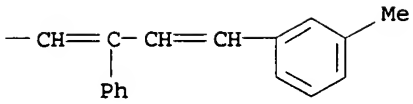
PAGE 1-B



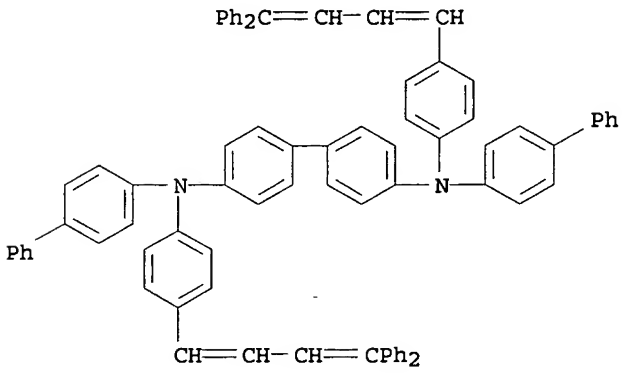
RN 197234-77-8 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis[4-[4-(3-methylphenyl)-2-phenyl-1,3-butadienyl]phenyl]-N,N'-bis[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

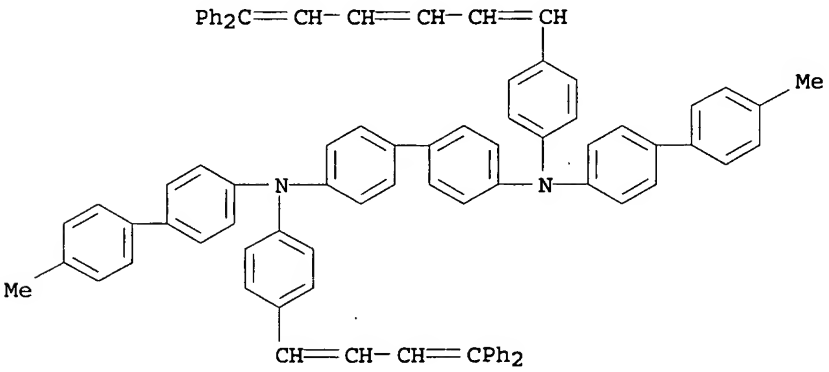




RN 197234-81-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

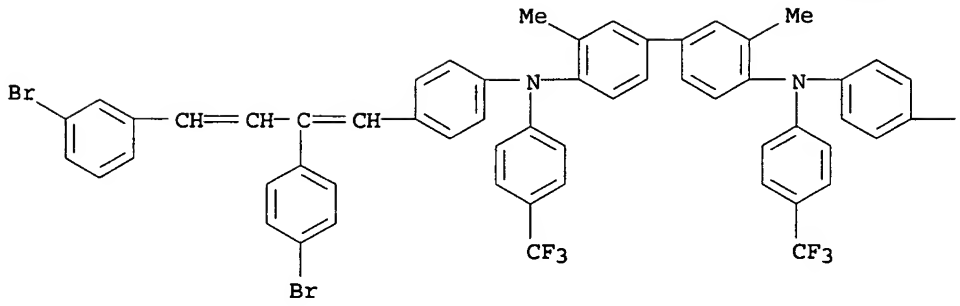


RN 197234-83-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N'-[4-(6,6-diphenyl-1,3,5-hexatrienyl)phenyl]-N,N'-bis(4'-methyl[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)

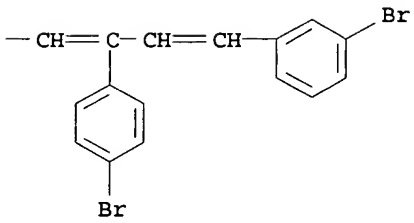


RN 197234-87-0 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[4-(3-bromophenyl)-2-(4-bromophenyl)-1,3-butadienyl]phenyl]-3,3'-dimethyl-N,N'-bis[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

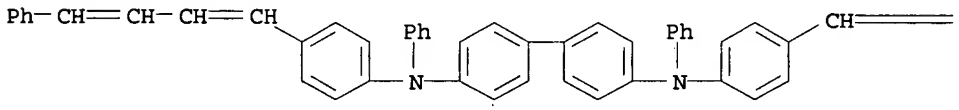


PAGE 1-B



RN 218276-54-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-diphenyl-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

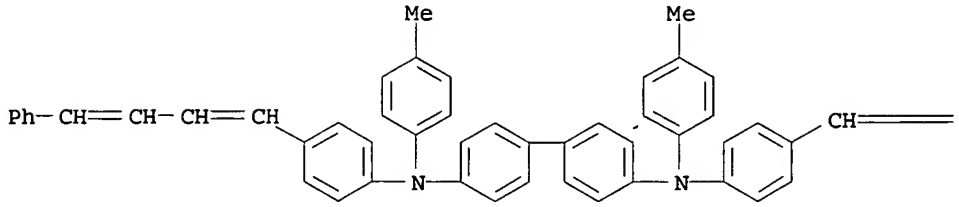


PAGE 1-B

=CH-CH=CH-Ph

IT **197234-90-5P**
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use as charge-transporting agent for electrophotog. photoreceptors)
RN 197234-90-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

═ CH— CH═ CH— Ph

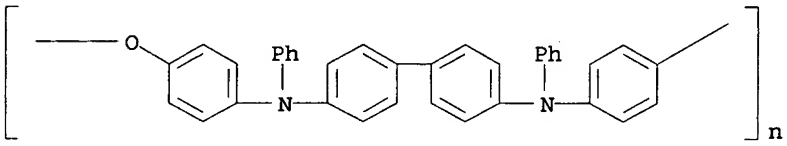
IC ICM G03G005-047
ICS G03G005-06
INCL 430058800
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors** (photoreceptors)
(containing arylamine charge-transporting agents with butadiene structures)
IT **197234-73-4 197234-74-5 197234-75-6**
197234-76-7 197234-77-8 197234-79-0
197234-81-4 197234-83-6 197234-85-8
197234-87-0 197234-88-1 **218276-54-1**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(charge-transporting agent for electrophotog. photoreceptors)
IT **197234-90-5P**
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use as charge-transporting agent for electrophotog. photoreceptors)
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 27 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:497131 HCAPLUS
DOCUMENT NUMBER: 131:176693
TITLE: A combinatorial study of the dependence of organic **LED** characteristics on layer thickness
AUTHOR(S): Schmitz, Christoph; Thelakkat, Mukundan; Schmidt, Hans-Werner
CORPORATE SOURCE: Inst. Makromolekulforschung, Univ. Bayreuth, Bayreuth, D-95440, Germany
SOURCE: Advanced Materials (Weinheim, Germany) (1999), 11(10), 821-826
CODEN: ADVMEW; ISSN: 0935-9648
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The variation of device parameters in **OLEDs** was studied, using an apparatus that employs combinatorial techniques. The combinatorial apparatus consists of a movable mask sledge and a

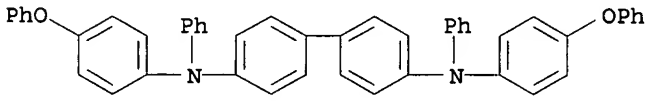
turnable substrate holder suitable for use in a vacuum deposition chamber. A matrix of **OLEDs** was fabricated in a single experiment, i.e. under comparable conditions, on a single substrate. A conventional **OLED** device structure, ITO/triphenyldiamine derivative (TPD)/Alq3/Al was used, where Alq3 [tris(8-hydroxyquinolinato)aluminum(III)] acts as the **electron transporting** and emitting **layer.** Some low mol. weight TPDs and a polymeric TPD were synthesized for use as **hole transport layers.** The dependence of photometric and power efficiencies was examined with respect to both TPD and/or Alq3 layer thickness. Using the new method, the influence of layer thickness variation of one or more layers on the device performance could easily be studied, producing landscape libraries of Alq3 and TPD layer thickness vs. power efficiency and photometric efficiency, resp.

IT **201026-18-8 239113-52-1**
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(combinatorial study of organic **LED** characteristics depending on thickness of triphenyldiamine derivs. and Alq3 **hole** and **electron transport layers**)

RN 201026-18-8 HCAPLUS
CN Poly[oxy-1,4-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)



RN 239113-52-1 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-phenoxyphenyl)-N,N'-diphenyl- (9CI) (CA INDEX NAME)



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 22, 76

ST phenyldiamine deriv aluminum hydroxyquinolinato thickness **LED** characteristic combinatorial technique

IT Current density
Electroluminescent devices
Thickness
(combinatorial study of organic **LED** characteristics depending on thickness of triphenyldiamine derivs. and Alq3 **hole** and **electron transport layers**)

IT **Luminescence, electroluminescence**
(of **organic LED** depending on thickness of triphenyldiamine derivs. and Alq3 **hole** and **electron transport layers**)

IT 20441-07-0, [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methoxyphenyl)-N,N'-diphenyl- **201026-18-8 239113-52-1** 239113-53-2
RL: DEV (Device component use); PRP (Properties); USES (Uses)
(combinatorial study of organic **LED** characteristics

depending on thickness of triphenyldiamine derivs. and Alq3 **hole** and **electron transport layers**)
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L74 ANSWER 28 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:191346 HCAPLUS
DOCUMENT NUMBER: 130:215832
TITLE: Electrophotographic imaging member containing high-performance charge-transporting polymer
INVENTOR(S): Fuller, Timothy J.; Teuscher, Leon A.; Pai, Damodar M.; Yanus, John F.
PATENT ASSIGNEE(S): Xerox Corporation, USA
SOURCE: U.S., 83 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5882814	A	19990316	US 1997-976238	1997 1121
EP 918256	A2	19990526	EP 1998-121408	1998 1111
EP 918256	A3	19991103		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 11223956	A2	19990817	JP 1998-328924	1998 1119
PRIORITY APPLN. INFO.:			US 1997-976238 A	1997 1121

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Disclosed is an electrophotog. imaging member comprising a conductive substrate, a photogenerating layer, and a charge-transporting layer comprising a polymer of the formulas I-IV (A, B, C = an aromatic group; x = 0 or 1; m, n = an integer representing the number of repeating units).
IT **220930-41-6P 220930-42-7P 220930-43-8P**
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in charge-transporting layers for electrophotog. photoreceptors)
RN 220930-41-6 HCAPLUS
CN Poly[oxy-1,4-phenylenecarbonyl-1,4-phenyleneoxy-1,3-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,3-phenylene] (9CI) (CA INDEX NAME)

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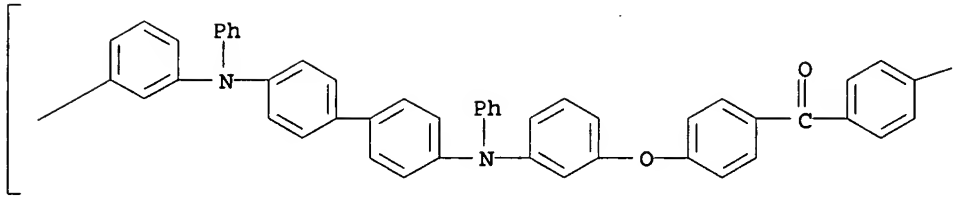
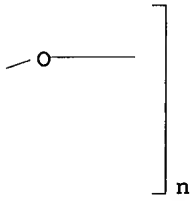
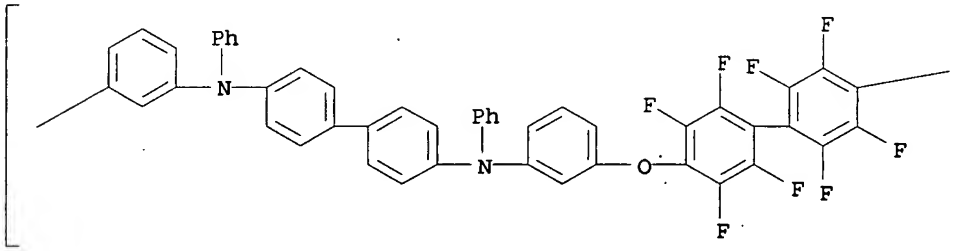


PAGE 1-B

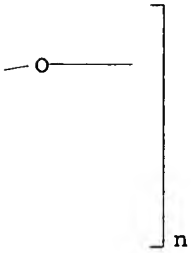


RN 220930-42-7 HCAPLUS
CN Poly[oxy(2,2',3,3',5,5',6,6'-octafluoro[1,1'-biphenyl]-4,4'-diyl)oxy-1,3-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,3-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A

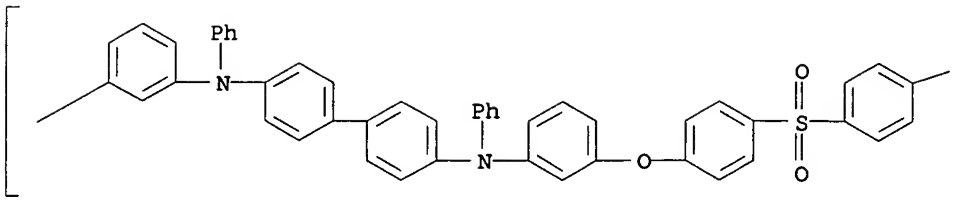


PAGE 1-B

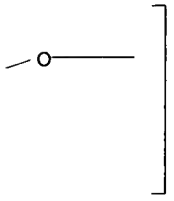


RN 220930-43-8 HCAPLUS
CN Poly[oxy-1,4-phenylenesulfonyl-1,4-phenyleneoxy-1,3-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,3-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-047
INCL 430059000
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors** (photoreceptors)
(charge-transporting polymers for)
IT **220930-41-6P 220930-42-7P 220930-43-8P**
RL: DEV (Device component use); SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in charge-transporting layers for electrophotog. photoreceptors)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

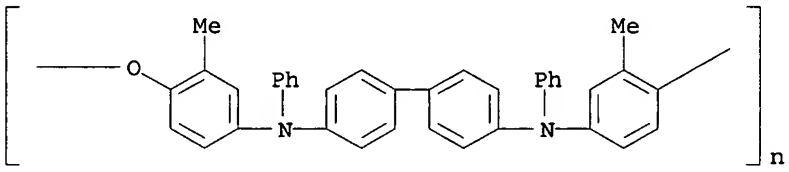
L74 ANSWER 29 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:90838 HCAPLUS
DOCUMENT NUMBER: 128:186310
TITLE: Synthesis and properties of new hole transport materials for organic **light emitting** devices
AUTHOR(S): Thelakkat, Mukundan; Bacher, Andreas; Fink, Ralf; Haubner, Frank; Schmidt, Hans-Werner
CORPORATE SOURCE: Makromolekulare Chemie I, Bayreuther Institute Makromolekulforschung, Universitat Bayreuth, Bayreuth, 95440, Germany
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1997), 3148(Organic Light-Emitting Materials and Devices), 306-312
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The authors synthesized low-mol.-weight tri-Ph diamines (TPDs), novel 1,3,5-tris(diarylamino)benzenes (TDABs), polymeric tri-Ph diamines and insol. tri-Ph amine networks based on tris(4-ethynylphenyl)amine as hole transport materials for **electroluminescent** displays. The HOMO energy values as determined from cyclic voltammetry measurements for TPDs and TDABs are between -4.97 and -5.16 eV. By using a polymeric TPD as

hole transport layer and tris(8-quinolinolato)aluminum as emitter, **LEDs** with an onset voltage of 3V and a **luminance** up to 900 cd/m2 were obtained under ambient conditions, using airstable Al-electrode as cathode and ITO as anode.

IT **203450-62-8P**
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis and properties of new hole transport materials for organic **light emitting** devices)

RN 203450-62-8 HCAPLUS

CN Poly[oxy(2-methyl-1,4-phenylene)(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)(3-methyl-1,4-phenylene)] (9CI) (CA INDEX NAME)



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

ST hole transport amine org **LED**; **light emitting** device hole transport

IT **Electroluminescent** devices
HOMO (molecular orbital)
Hole transport
(synthesis and properties of new hole transport materials for organic **light emitting** devices)

IT Amines, properties
Polyamines
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis and properties of new hole transport materials for organic **light emitting** devices)

IT 2085-33-8P, Tris(8-quinolinolato)aluminum
RL: DEV (Device component use); MOA (Modifier or additive use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(emitter layer; synthesis and properties of new hole transport materials for organic **light emitting** devices)

IT 15546-43-7P 20441-07-0P 104216-56-0P 107001-70-7P
122738-21-0P 137832-75-8P 189178-08-3P 189178-09-4P
201026-13-3P 201026-14-4P 201026-17-7P 202477-56-3P
203450-59-3P 203450-60-6P 203450-61-7P **203450-62-8P**
203450-64-0P
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(synthesis and properties of new hole transport materials for organic **light emitting** devices)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

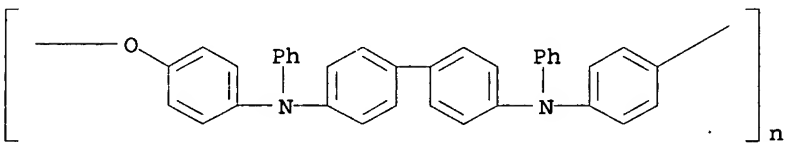
L74 ANSWER 30 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:760091 HCAPLUS
DOCUMENT NUMBER: 128:94870
TITLE: Synthesis and properties of novel hole transport materials for **electroluminescent** devices
AUTHOR(S): Thelakkat, Mukundan; Fink, Ralf; Haubner, Frank; Schmidt, Hans Werner

CORPORATE SOURCE: Bayreuther Inst. Makromolekuelforschung, Univ. Bayreuth, Bayreuth, D-95440, Germany
SOURCE: Macromolecular Symposia (1998), 125(Organic Light-Emitting Materials and Devices), 157-164
CODEN: MSYMEC; ISSN: 1022-1360
PUBLISHER: Huethig & Wepf Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Low-mol.-weight triphenyldiamines (TPDs), novel 1,3,5-tris(diarylamino)benzenes (TDABs), polymeric triphenyldiamines, and insol. triphenylamine networks based on tris(4-ethynylphenyl)amine were prepared as hole transport materials for **electroluminescent** displays. The HOMO energies as determined from cyclic voltammetry for TPDs and TDABs are between -4.97 and -5.16 eV. By using a polymeric TPD as **hole transport layer** and tris(8-quinolinolato)aluminum as emitter, **LEDs** with an onset voltage of 3 V and a **luminance** ≤900 cd/m2 were obtained under ambient conditions.

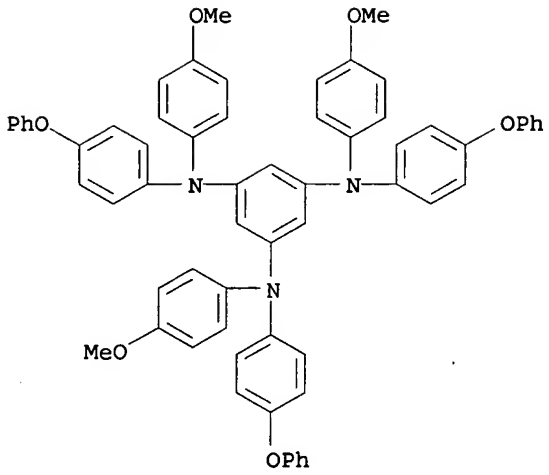
IT **201026-18-8P**
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation and properties of phenylamines and polymers thereof as hole transport materials for **electroluminescent** devices)

RN 201026-18-8 HCAPLUS
CN Poly[oxy-1,4-phenylene(phenylimino)[1,1'-biphenyl]-4,4'-diyl(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)



IT **184895-04-3P**
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of phenylamines and polymers thereof as hole transport materials for **electroluminescent** devices)

RN 184895-04-3 HCAPLUS
CN 1,3,5-Benzenetriamine, N,N',N''-tris(4-methoxyphenyl)-N,N',N''-tris(4-phenoxyphenyl)- (9CI) (CA INDEX NAME)



CC 73-5 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 25, 37, 76

ST phenylamine prepn polymn **electroluminescent** device; polymeric phenyldiamine **LED**; HOMO energy phenylamine polymer **electroluminescence**; oxidn potential phenylamine polymer **electroluminescence**

IT HOMO (molecular orbital)
(energy; of phenylamines and polymers thereof as hole transport materials for **electroluminescent** devices)

IT **Luminescence, electroluminescence**
Oxidation potential
(of phenylamines and polymers thereof as hole transport materials for **electroluminescent** devices)

IT **Electroluminescent** devices
(preparation and properties of phenylamines and polymers thereof as hole transport materials for)

IT 201026-15-5P **201026-18-8P**
RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); PREP (Preparation); USES (Uses)
(preparation and properties of phenylamines and polymers thereof as hole transport materials for **electroluminescent** devices)

IT 15546-43-7P 20441-07-0P 107001-70-7P 122738-21-0P
126738-30-5P 137832-75-8P **184895-04-3P** 184895-05-4P
189178-04-9P 189178-05-0P 189178-08-3P 189178-09-4P
201026-13-3P 201026-14-4P 201026-17-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and properties of phenylamines and polymers thereof as hole transport materials for **electroluminescent** devices)

IT 90-14-2, 1-Iodonaphthalene 101-70-2, Bis(4-methoxyphenyl)amine 104-94-9 108-73-6, Phloroglucinol 122-39-4, Diphenylamine, reactions 536-74-3, Phenylacetylene 696-62-8, 4-Iodoanisole 1066-54-2, Trimethylsilylacetylene 1208-86-2, (4-Methoxyphenyl)phenylamine 1591-31-7, 4-Iodobiphenyl 2974-94-9, 4-Iodophenyl phenyl ether 3001-15-8 4316-58-9, Tris(4-bromophenyl)amine 22362-94-3, 2-Iodoanthracene
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation and properties of phenylamines and polymers thereof as hole transport materials for **electroluminescent** devices)

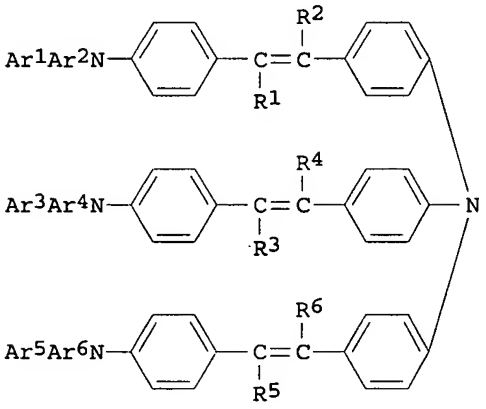
L74 ANSWER 31 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:739439 HCAPLUS
DOCUMENT NUMBER: 128:55349
TITLE: An electrophotographic photoreceptor containing tris[4-(4-aminostyryl)phenyl]amine derivatives
INVENTOR(S): Endo, Hiroyuki; Hirano, Akira
PATENT ASSIGNEE(S): NEC Corp., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09292724	A2	19971111	JP 1997-2844	19970110
JP 2940502	B2	19990825		
US 5733697	A	19980331	US 1997-806858	19970226

PRIORITY APPLN. INFO.: JP 1996-40220 A 19960228
JP 1997-2844 A 19970110

OTHER SOURCE(S): MARPAT 128:55349
GI



I

AB A laminated electrophotog. photoreceptor comprises a charge-transporting layer containing at least one compound of formula (I; Ar1 - Ar6 = Ph optionally substituted with 1-4 groups selected from alkyl, alkoxy, alkylamino, dialkylamino, alkylthio, haloalkyl, NH2, and halo; R1 - R6 = H, Me). It provides high light sensitivity and is excellent in stability of elec. potential during repeated usage. An aluminum substrate was successively coated with an under coat layer of methoxymethylated nylon (T-8, Unichika Inc., Japan), a charge-generating layer containing n-type titanylphthalocyanine and polyvinyl butyral (BX-1, Sekisui Chemical Inc., Japan), and a CH2Cl2 solution of I (Ar1 - Ar6 = p-methylphenyl,

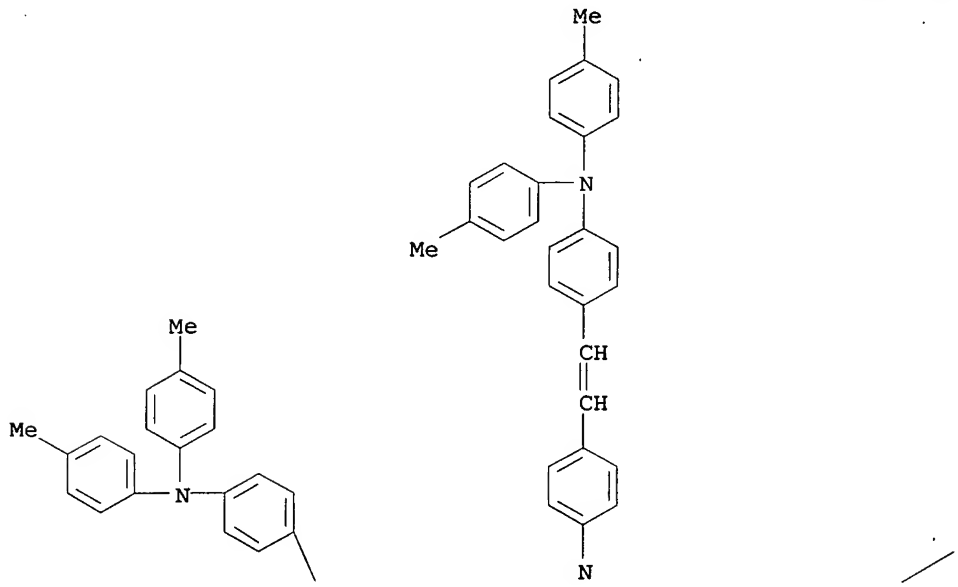
R1 - R6 = H) and a polycarbonate (Iupilon Z-200, Mitsubishi Gas Chemical Inc.) in 0.8:1 weight ratio which was dried at 90° for 60 min to form a charge-transporting layer to provide an electrophotog. photoreceptor. The latter electrophotog. photoreceptor was charged by corona charge at -6 kV and after dark attenuation for 3 s, irradiated by a 5 lx white light for 5 s to show E1/2 (amount of light exposure required to reduce the surface charge to one half) of 0.239 lx.s and residual charge -4 V vs. 0.240 lx.s and -5 V, resp., after repeating 1,000 times charge-discharge cycles.

IT **199868-25-2 199868-26-3 199868-27-4 199868-28-5 199868-29-6 199868-30-9 199868-31-0 199868-32-1 199868-33-2 199868-34-3 199868-35-4 199868-38-7 199868-41-2 199868-44-5 199868-46-7 199868-48-9 199868-49-0 199868-51-4 199868-54-7 199868-60-5 199868-61-6 199868-62-7 199868-63-8 199868-64-9 199868-65-0**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electrophotog. photoreceptor containing tris[(aminostyryl)phenyl]amine derivs. with high photosensitivity and stable surface charge)

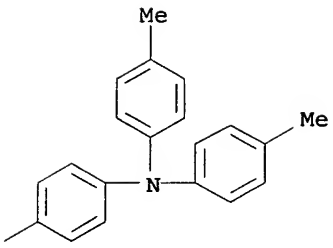
RN 199868-25-2 HCAPLUS

CN Benzenamine, 4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]-N,N-bis[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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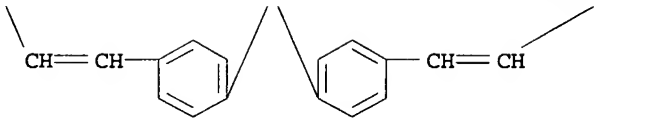

RN 199868-26-3 HCAPLUS
CN Benzenamine, 4-[2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]-N,N-bis[4-[2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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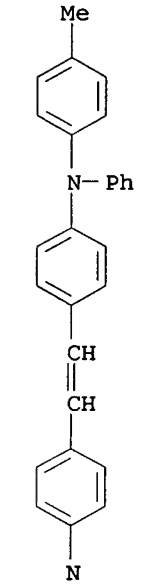

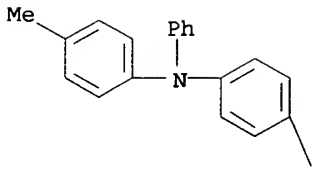

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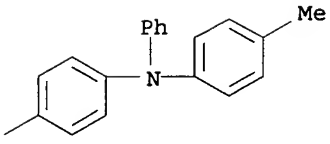

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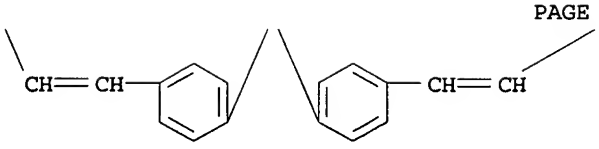

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CN Benzenamine, 4-[2-[4-[(2,4-dimethylphenyl)phenylamino]phenyl]ethen

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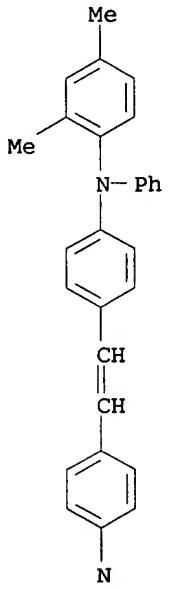

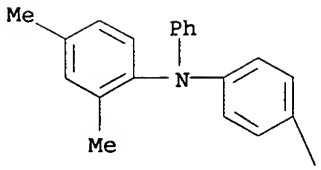

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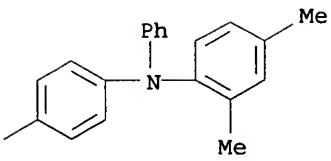

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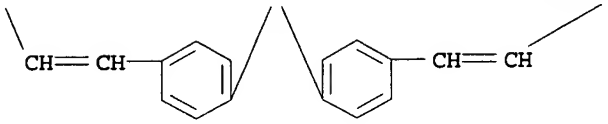

RN 199868-28-5 HCAPLUS
CN Benzenamine, 4-[2-[4-[bis(4-methylphenyl)amino]phenyl]-1-methylethenyl]-N,N-bis[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]-1-methylethenyl]phenyl]- (9CI) (CA INDEX NAME)

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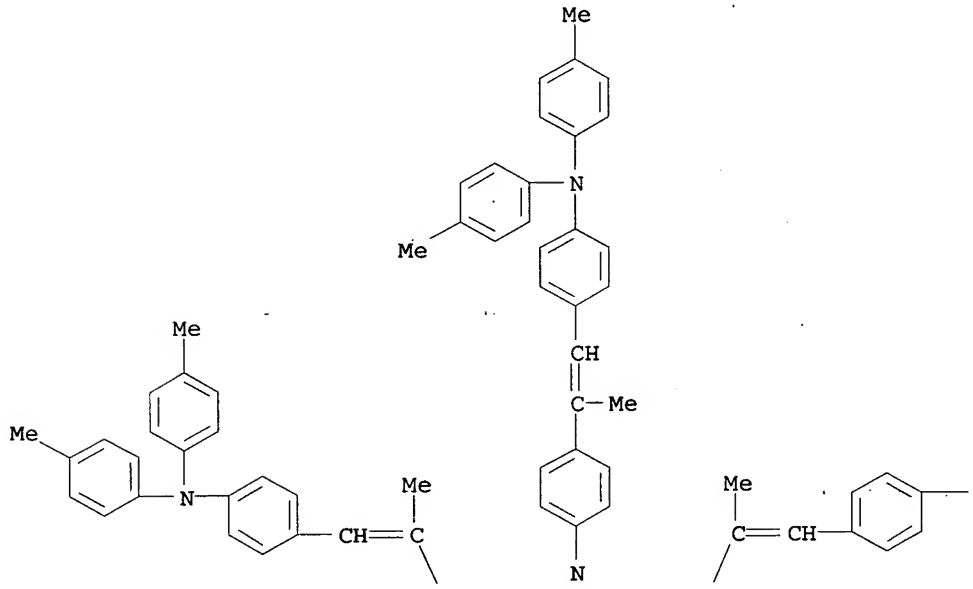

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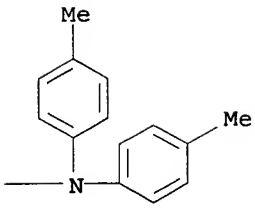

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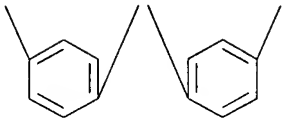

RN 199868-29-6 HCAPLUS
CN Benzenamine, 4-[1-methyl-2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]-N,N-bis[4-[1-methyl-2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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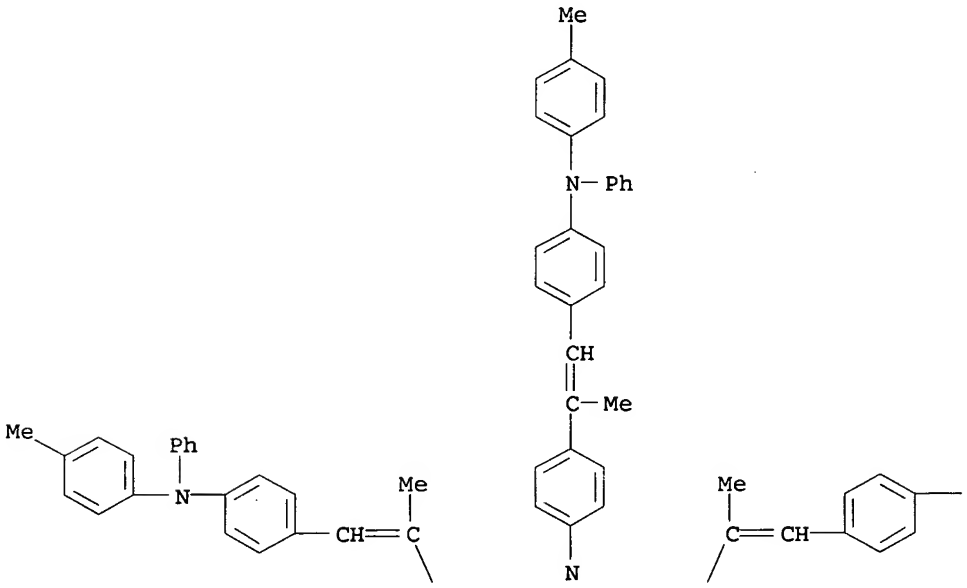

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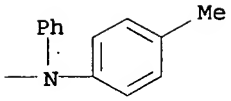

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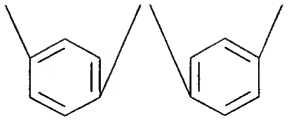

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CN Benzenamine, 4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]-N,N-bis[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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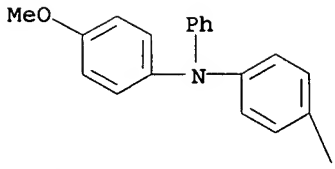

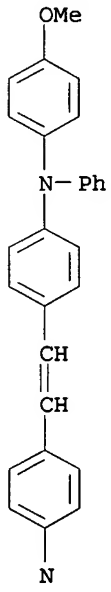

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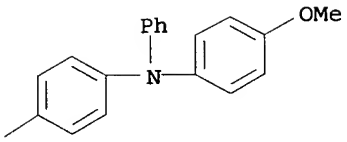

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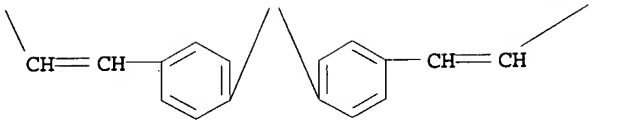

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CN Benzenamine, 4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]-N,N-bis[4-[2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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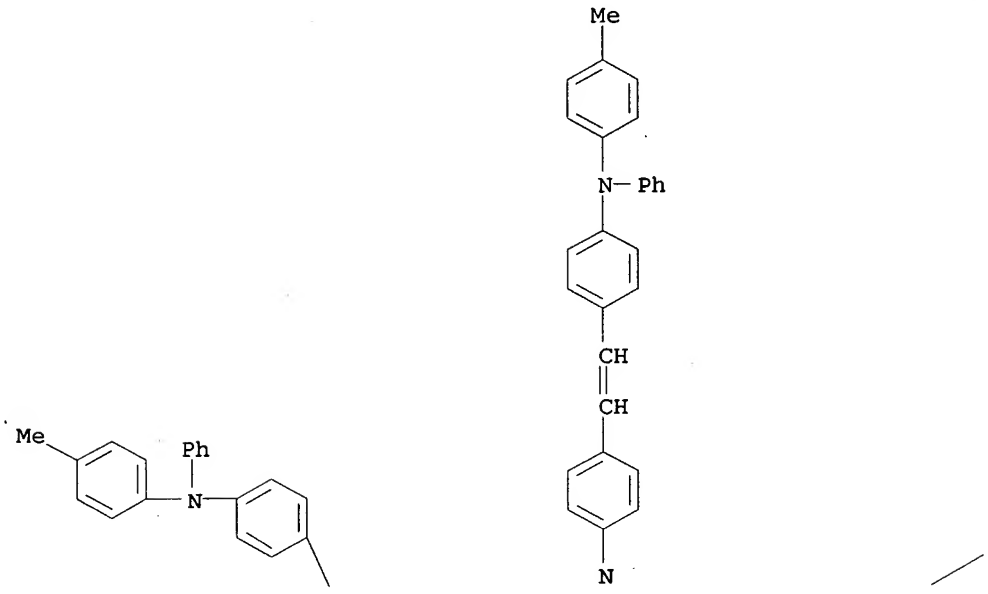

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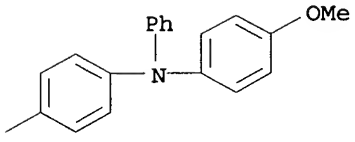

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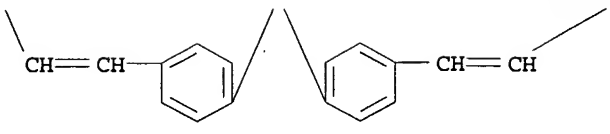

RN 199868-32-1 HCAPLUS
CN Benzenamine, 4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]-1-

methylethenyl]-N,N-bis[4-[2-[4-[(4-methoxyphenyl)phenylamino]pheny
l]-1-methylethenyl]phenyl]- (9CI) (CA INDEX NAME)

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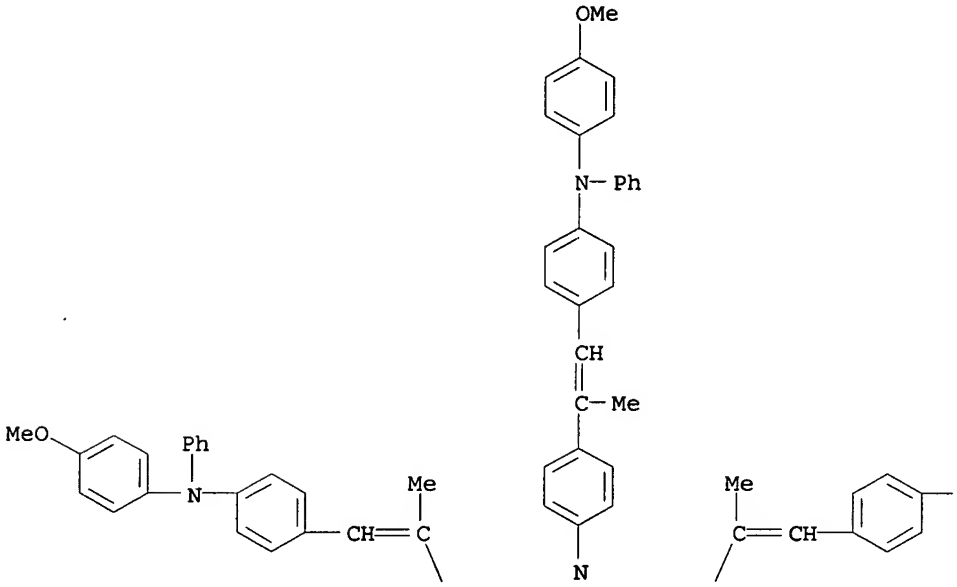

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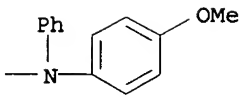

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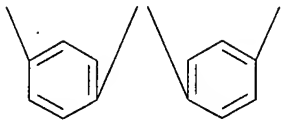

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CN Benzenamine, N,N-bis[4-[2-[4-(diphenylamino)phenyl]-1-methylethenyl]phenyl]-4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]-1-methylethenyl]- (9CI) (CA INDEX NAME)

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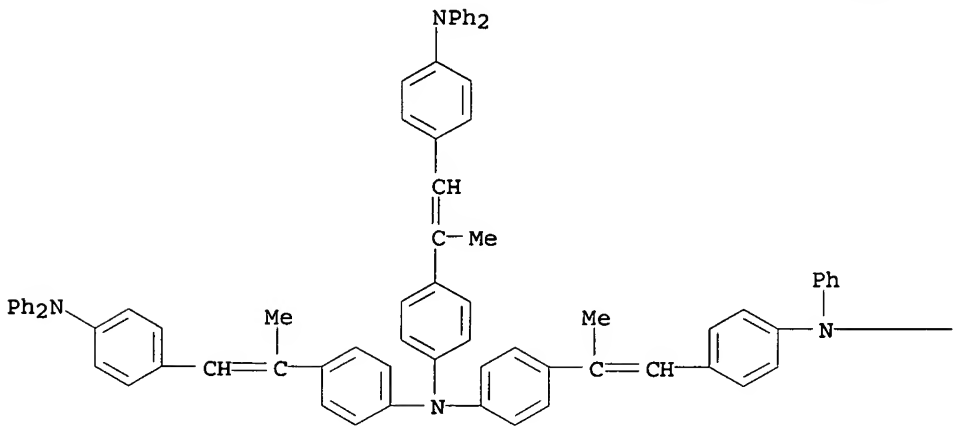

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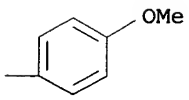

RN 199868-34-3 HCAPLUS
CN 1,4-Benzenediamine, N-[4-[2-[4-[bis[4-[2-[4-(diphenylamino)phenyl]ethenyl]phenyl]amino]phenyl]ethenyl]phenyl]-N',N'-diethyl-N-phenyl- (9CI) (CA INDEX NAME)

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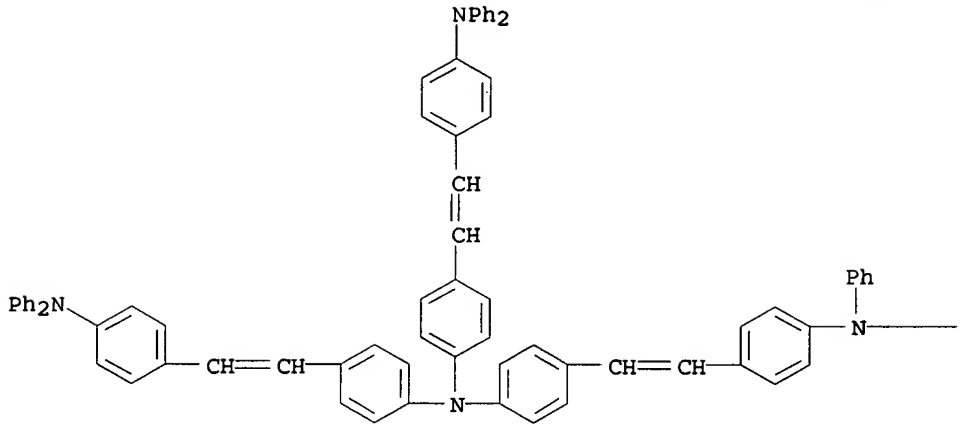

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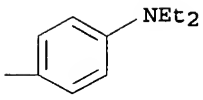

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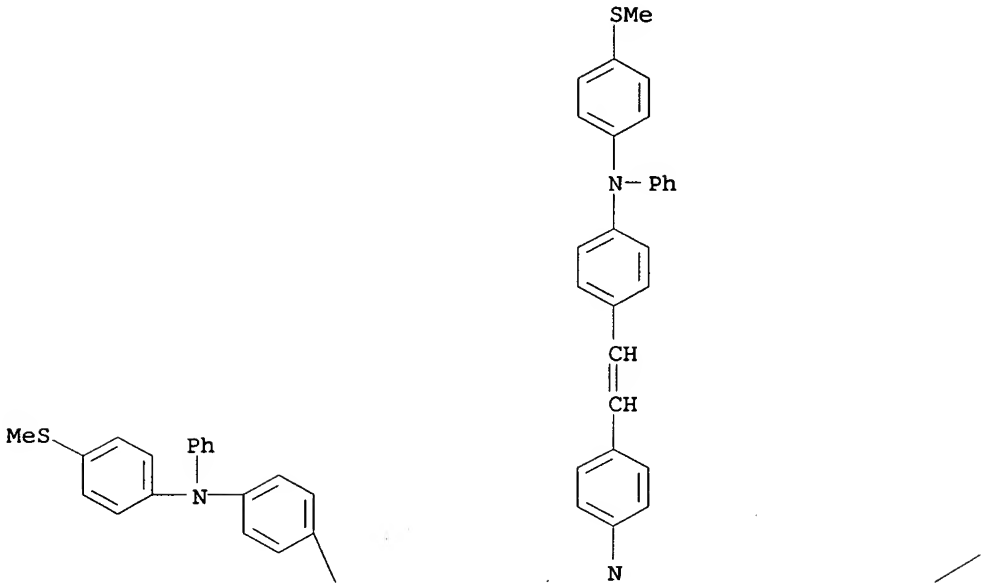

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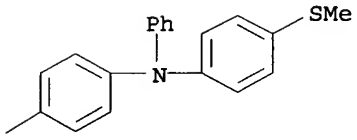

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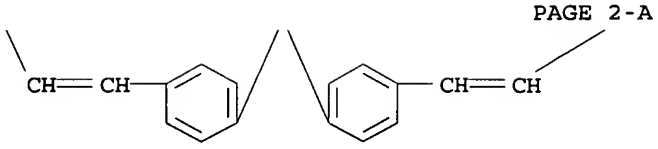

RN 199868-38-7 HCAPLUS
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4-[2-[4-[[4-(methylthio)phenyl]phenylamino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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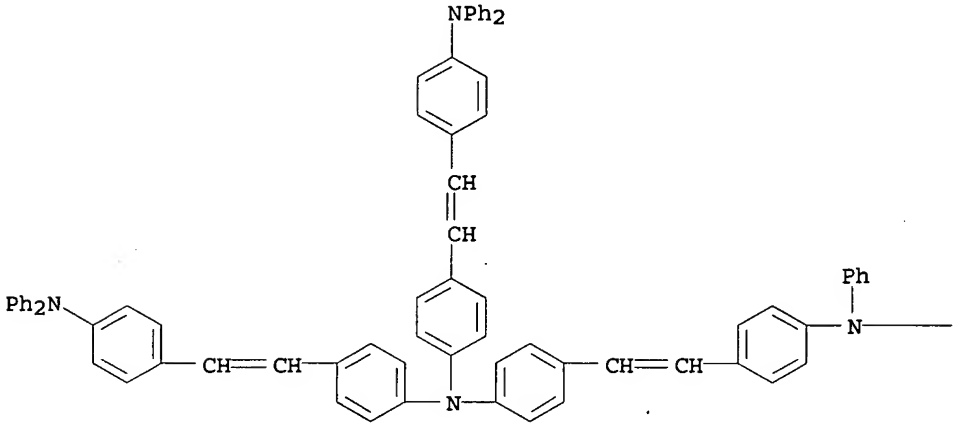

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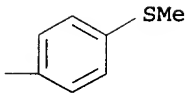

RN 199868-41-2 HCAPLUS
CN Benzenamine, 4-[2-[4-[(4-chlorophenyl)phenylamino]phenyl]ethenyl]-N,N-bis[4-[2-[4-[(4-chlorophenyl)phenylamino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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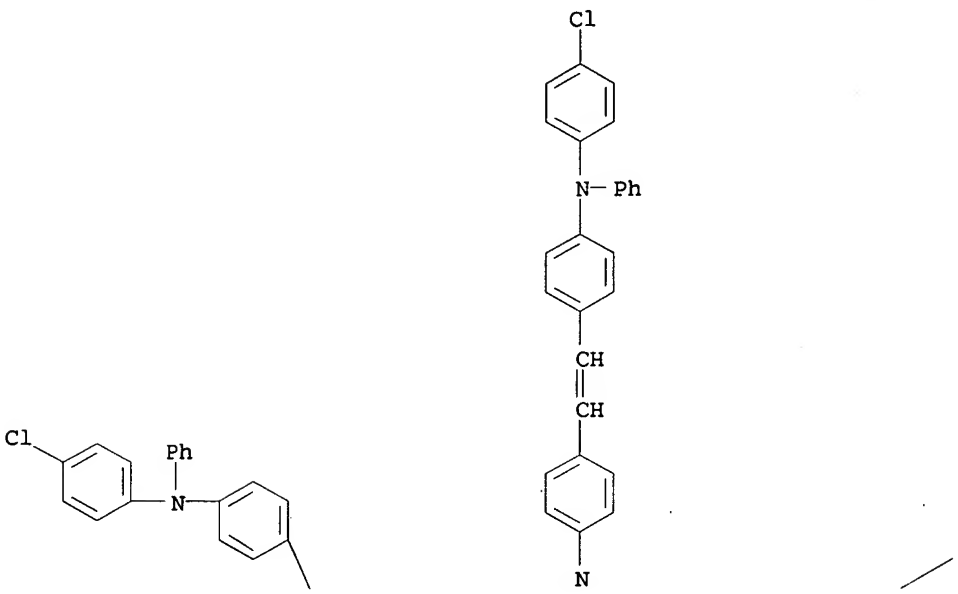

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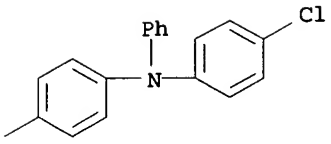

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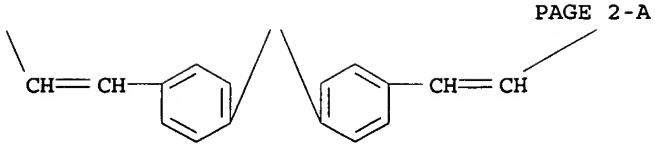

RN 199868-44-5 HCAPLUS
CN Benzenamine, 4-[2-[4-[(4-chlorophenyl)phenylamino]phenyl]-1-

methylethenyl]-N,N-bis[4-[2-[4-[(4-chlorophenyl)phenylamino]phenyl]-1-methylethenyl]phenyl]- (9CI) (CA INDEX NAME)

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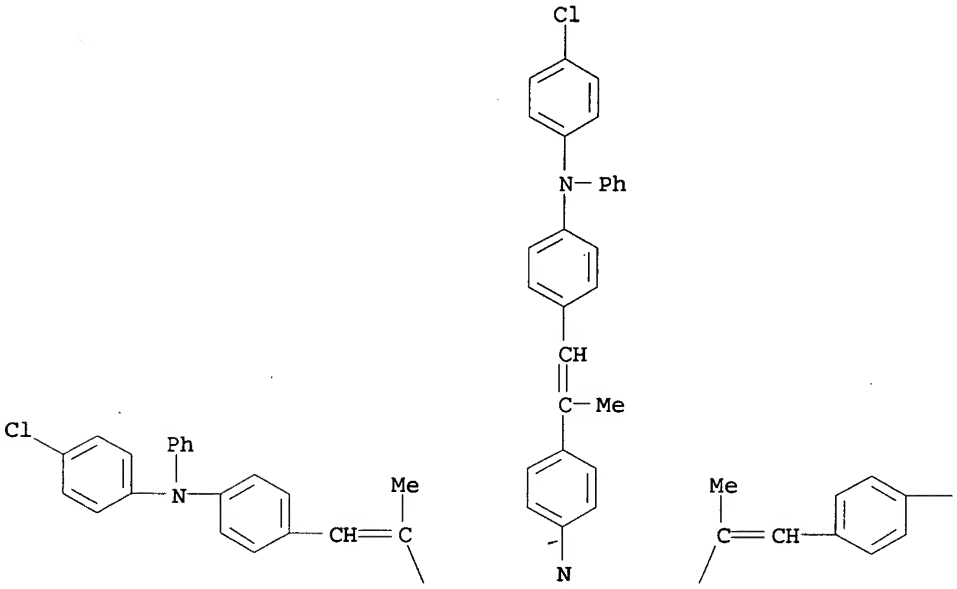

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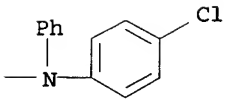

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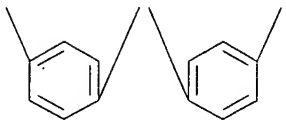

RN 199868-46-7 HCAPLUS
CN Benzenamine, 4-[2-[4-[(4-chlorophenyl)phenylamino]phenyl]-1-methylethenyl]-N,N-bis[4-[1-methyl-2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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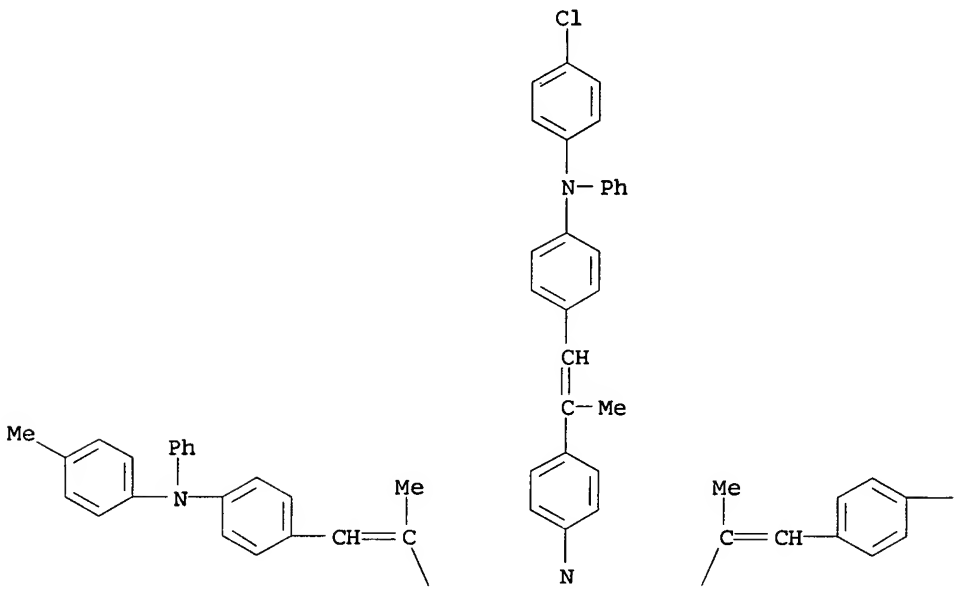

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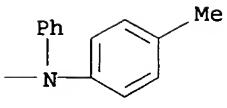

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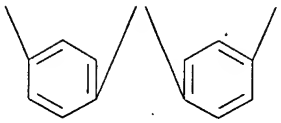

RN 199868-48-9 HCAPLUS
CN Benzenamine, 4-[2-[4-[phenyl[4-(trifluoromethyl)phenyl]amino]phenyl]ethenyl]-N,N-bis[4-[2-[4-[phenyl[4-(trifluoromethyl)phenyl]amino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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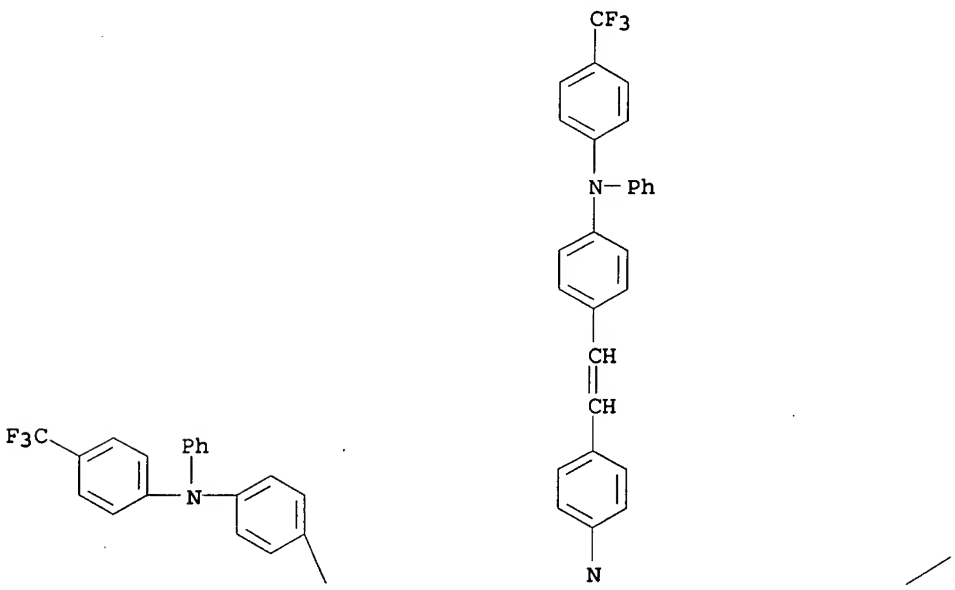

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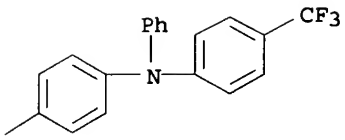

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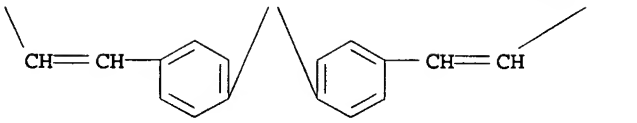

RN 199868-49-0 HCAPLUS
CN Benzenamine, 4-[1-methyl-2-[4-[phenyl[4-(trifluoromethyl)phenyl]amino]phenyl]ethenyl]-N,N-bis[4-[1-methyl-2-[4-[phenyl[4-(trifluoromethyl)phenyl]amino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

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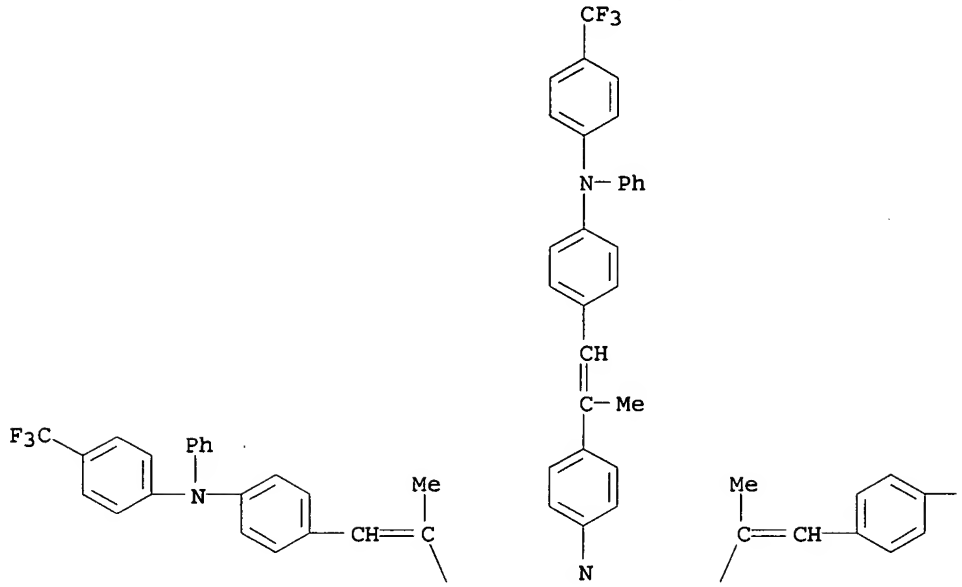

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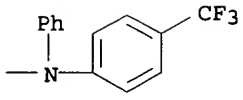

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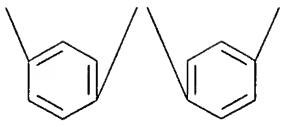

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CN Benzenamine, N,N-bis[4-[2-[4-(diphenylamino)phenyl]-1-methylethenyl]phenyl]-4-[1-methyl-2-[4-[phenyl[4-

(trifluoromethyl)phenyl]amino]phenyl]ethenyl]- (9CI) (CA INDEX NAME)

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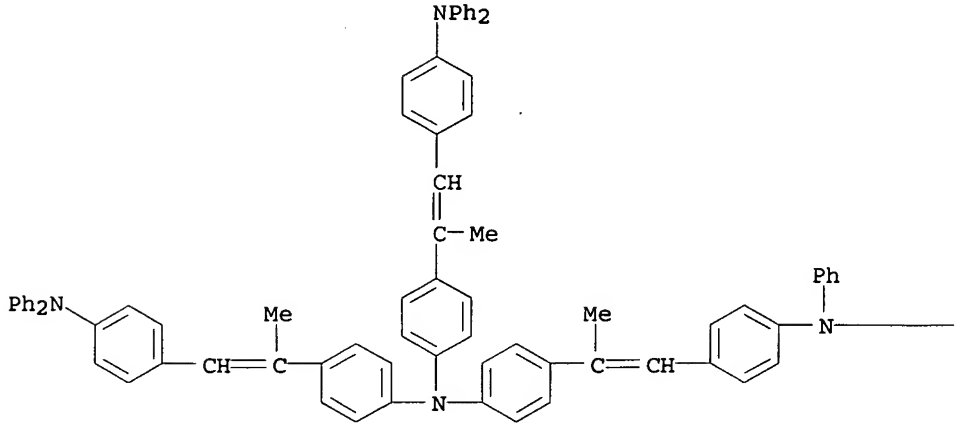

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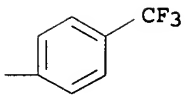
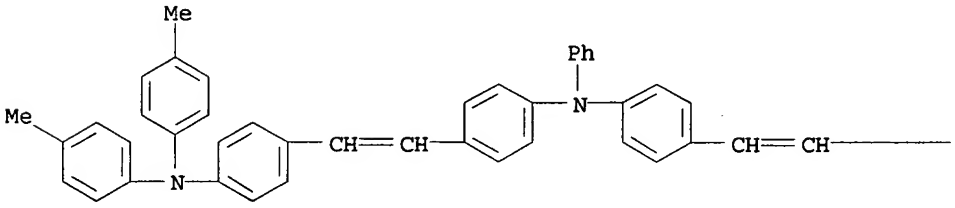
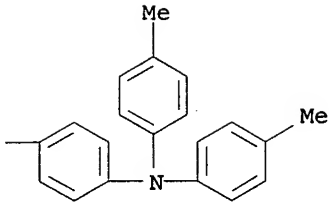


RN 199868-54-7 HCAPLUS
CN Benzenamine, 4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]-N-[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

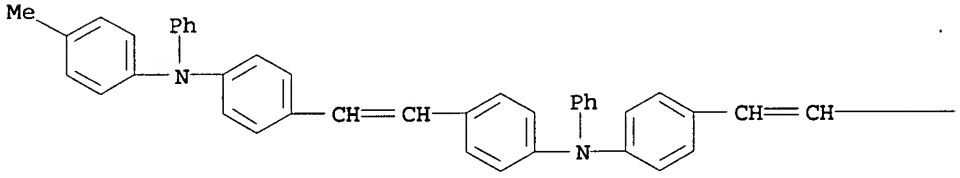


PAGE 1-B

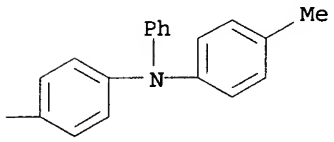


RN 199868-60-5 HCAPLUS
CN Benzenamine, 4-[2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]-N-[4-[2-[4-[(4-methylphenyl)phenylamino]phenyl]ethenyl]phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

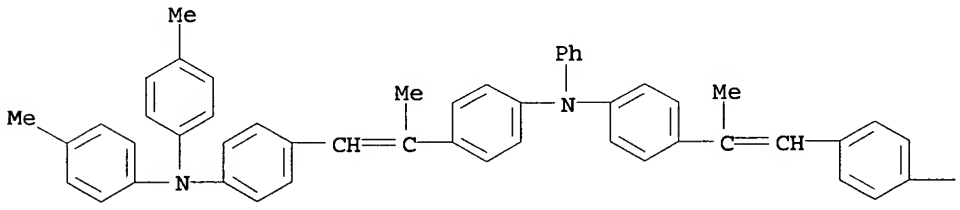


PAGE 1-B

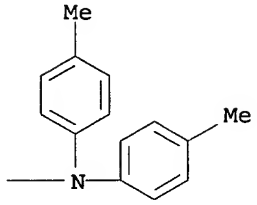


RN 199868-61-6 HCAPLUS
CN Benzenamine, 4-[2-[4-[bis(4-methylphenyl)amino]phenyl]-1-methylethenyl]-N-[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]-1-methylethenyl]phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

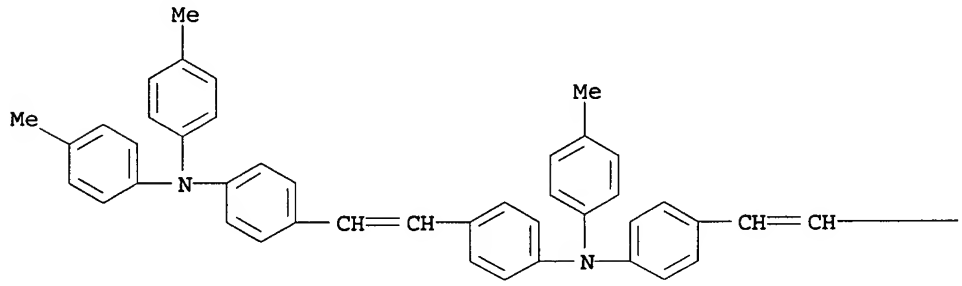


PAGE 1-B

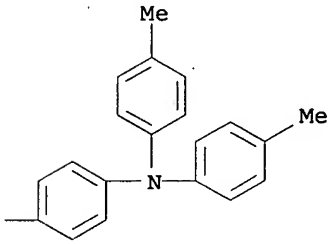


RN 199868-62-7 HCAPLUS
CN Benzenamine, 4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]-N-[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]phenyl]-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

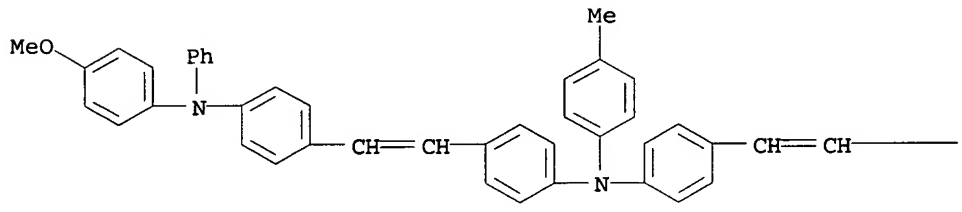


PAGE 1-B

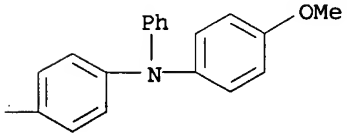


RN 199868-63-8 HCAPLUS
CN Benzenamine, 4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]-N-[4-[2-[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenyl]phenyl]-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



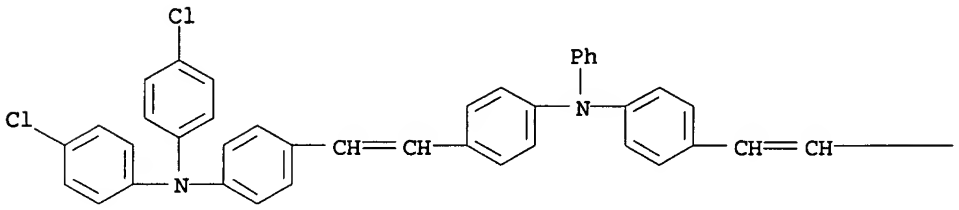
PAGE 1-B



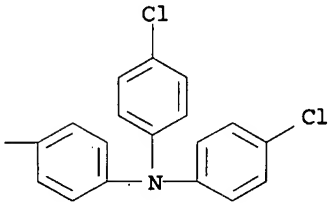
RN 199868-64-9 HCAPLUS
CN Benzenamine, 4-[2-[4-[bis(4-chlorophenyl)amino]phenyl]ethenyl]-N-

[4-[2-[4-[bis(4-chlorophenyl)amino]phenyl]ethenyl]phenyl]-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

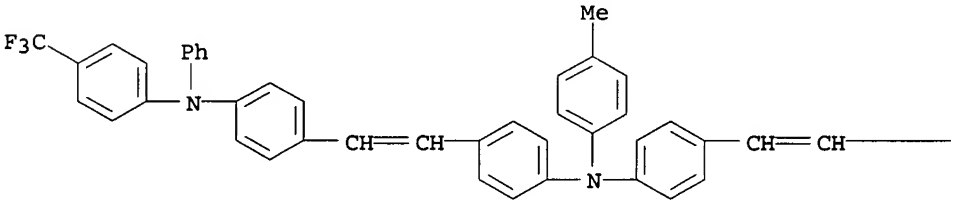


PAGE 1-B

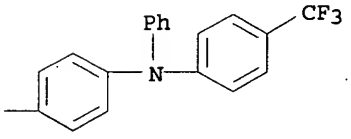


RN 199868-65-0 HCAPLUS
CN Benzenamine, N-(4-methylphenyl)-4-[2-[4-[phenyl[4-(trifluoromethyl)phenyl]amino]phenyl]ethenyl]-N-[4-[2-[4-[phenyl[4-(trifluoromethyl)phenyl]amino]phenyl]ethenyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



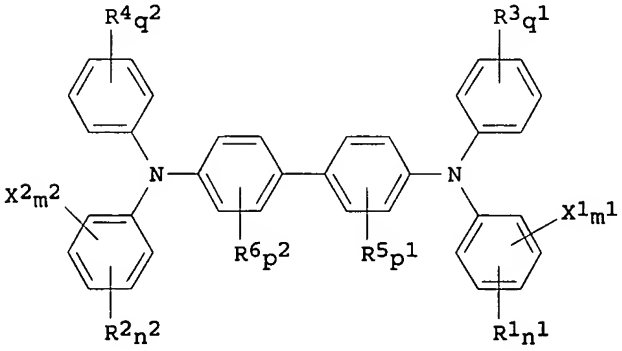
IC ICM G03G005-06
ICS G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors** (photoreceptors)
(electrophotog. photoreceptor containing tris[(aminostyryl)phenyl]amine derivs. with high photosensitivity and stable surface charge)
IT **199868-25-2 199868-26-3 199868-27-4 199868-28-5 199868-29-6 199868-30-9**

199868-31-0 199868-32-1 199868-33-2
199868-34-3 199868-35-4 199868-38-7
199868-41-2 199868-44-5 199868-46-7
199868-48-9 199868-49-0 199868-51-4
199868-54-7 199868-60-5 199868-61-6
199868-62-7 199868-63-8 199868-64-9
199868-65-0
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electrophotog. photoreceptor containing tris[(aminostyryl)phenyl]amine derivs. with high photosensitivity and stable surface charge)

L74 ANSWER 32 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:632450 HCAPLUS
DOCUMENT NUMBER: 127:313102
TITLE: Electrophotographic photoreceptor
INVENTOR(S): Mitsumori, Teruyuki
PATENT ASSIGNEE(S): Mitsubishi Chemical Corporation, Japan
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 795791	A1	19970917	EP 1997-103985	1997 0310
EP 795791 R: DE, FR, GB	B1	20000913		
JP 09244278	A2	19970919	JP 1996-52964	1996 0311
JP 3584600	B2	20041104		
PRIORITY APPLN. INFO.:			JP 1996-52964 A	1996 0311

OTHER SOURCE(S): MARPAT 127:313102
GI



I

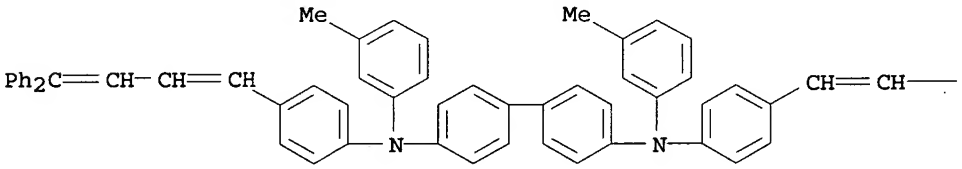
AB An electrophotog. photoreceptor comprises, on an electroconductive substrate, a photosensitive layer containing an arylamine compound having the formula I, wherein X1 has the formula

(CR7=CR8)iCR9=CR10R11 and X2 has the formula (CR12=CR13)hCR14=CR15R16 (R1-6 = halogen, alkyl, alkoxy, aryl, dialkylamino, diarylamino, diaralkylamino, or diheterocyclylamino; m1, m2, n1, n2, p1, p2, q1, q2 = an integer of 0-4; R7-16 = H, alkyl, alkoxy, aryl, or heterocyclyl; i = an integer of 1-4).

IT **197234-73-4 197234-74-5 197234-75-6 197234-76-7 197234-77-8 197234-81-4 197234-83-6 197234-87-0 197234-92-7**
RL: TEM (Technical or engineered material use); USES (Uses) (electrophotog. photoreceptors with charge-transporting layers containing)

RN 197234-73-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(3-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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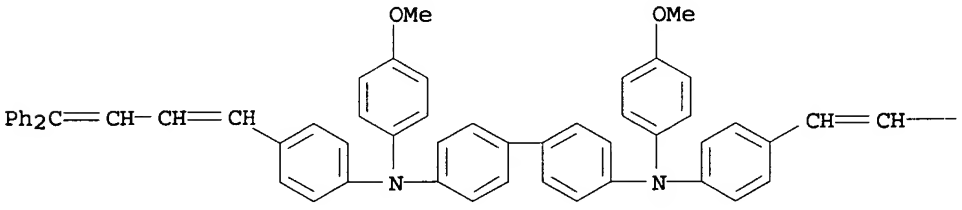
— CH═ CPh2

RN 197234-74-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N,N'-bis(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

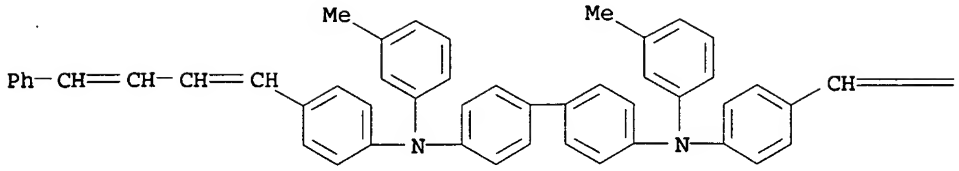


PAGE 1-B

— CH═ CPh2

RN 197234-75-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(3-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

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RN 197234-76-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(2,4-dimethylphenyl)-N,N'-bis[4-[4-(3-methoxyphenyl)-1,3-butadienyl]phenyl]-3,3'-dimethyl-(9CI) (CA INDEX NAME)

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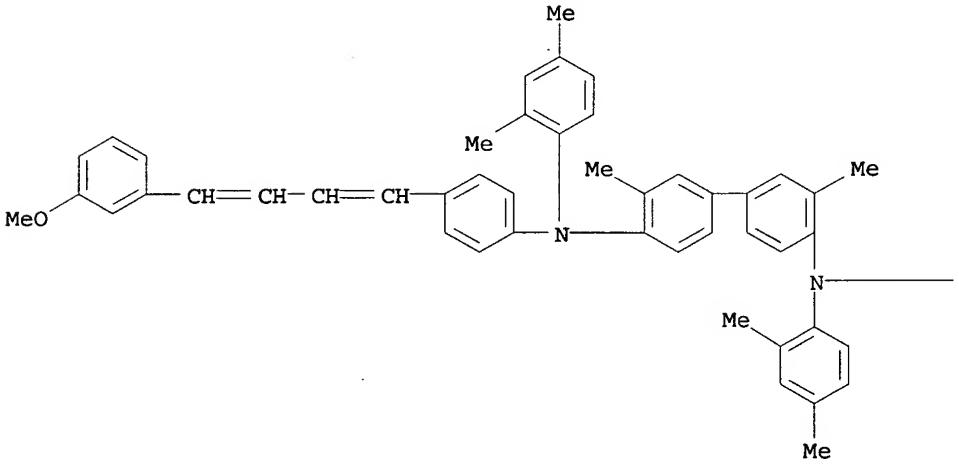
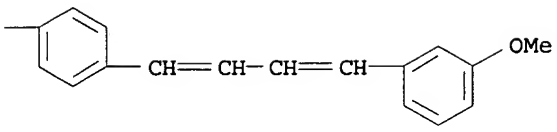
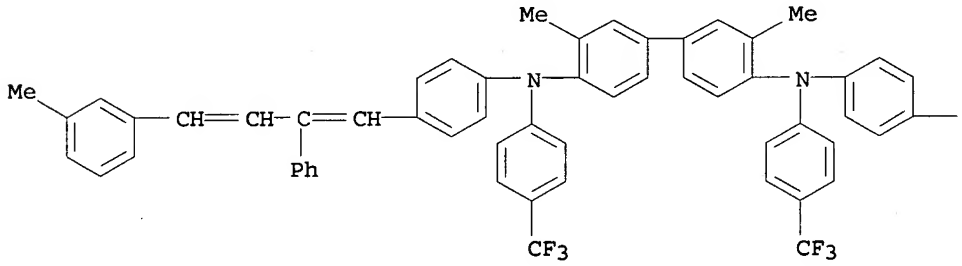


PAGE 1-B

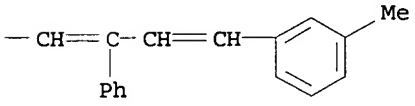


RN 197234-77-8 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-N,N'-bis[4-[4-(3-methylphenyl)-2-phenyl-1,3-butadienyl]phenyl]-N,N'-bis[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

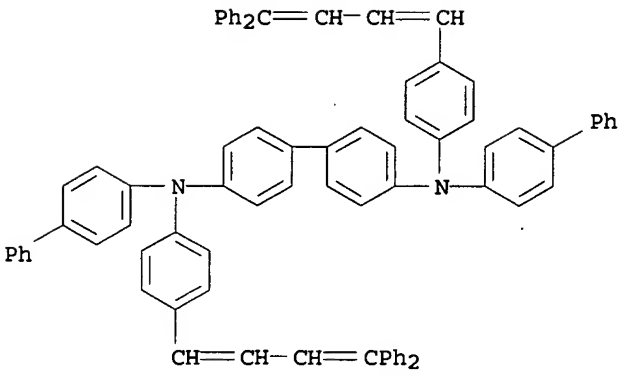
PAGE 1-A



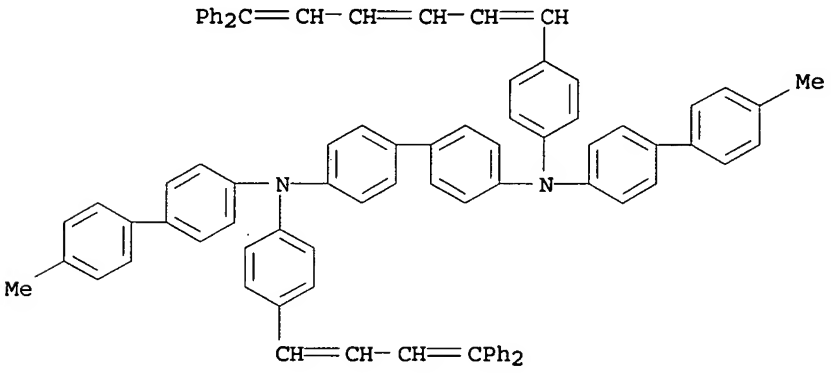
PAGE 1-B



RN 197234-81-4 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis([1,1'-biphenyl]-4-yl)-N,N'-bis[4-(4,4-diphenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

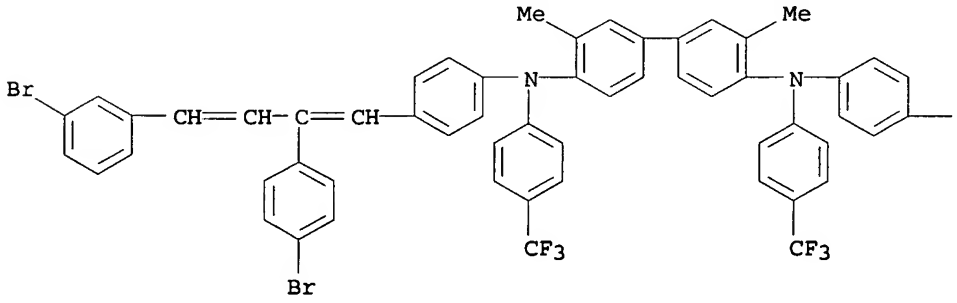


RN 197234-83-6 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N-[4-(4,4-diphenyl-1,3-butadienyl)phenyl]-N'-[4-(6,6-diphenyl-1,3,5-hexatrienyl)phenyl]-N,N'-bis(4'-methyl[1,1'-biphenyl]-4-yl)- (9CI) (CA INDEX NAME)

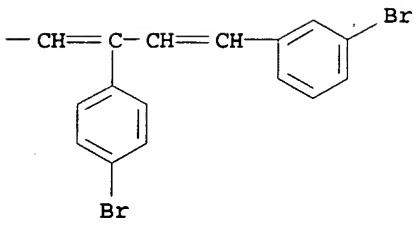


RN 197234-87-0 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis[4-[4-(3-bromophenyl)-2-(4-bromophenyl)-1,3-butadienyl]phenyl]-3,3'-dimethyl-N,N'-bis[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

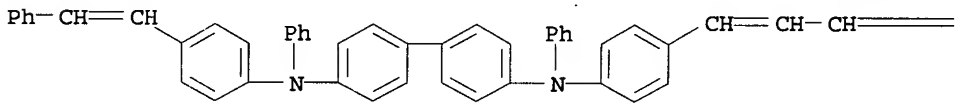


PAGE 1-B



RN 197234-92-7 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-diphenyl-N-[4-(4-phenyl-1,3-butadienyl)phenyl]-N'-[4-(2-phenylethenyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

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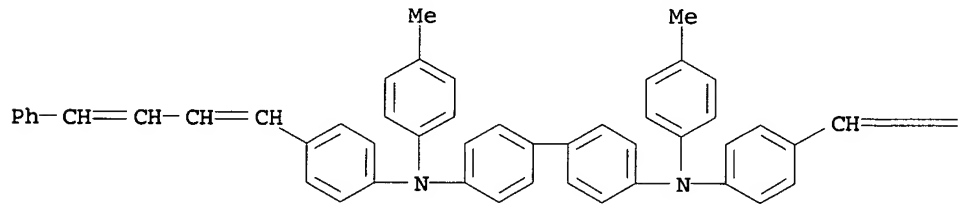
IT **197234-90-5P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in preparing charge-transporting layers for electrophotog. photoreceptors)
RN 197234-90-5 HCAPLUS
CN [1,1'-Biphenyl]-4,4'-diamine, N,N'-bis(4-methylphenyl)-N,N'-bis[4-(4-phenyl-1,3-butadienyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

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IC ICM G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors** (photoreceptors)
(with charge-transporting layers containing arylamine compds.)
IT **197234-73-4 197234-74-5 197234-75-6**
197234-76-7 197234-77-8 197234-79-0
197234-81-4 197234-83-6 197234-85-8
197234-87-0 197234-88-1 **197234-92-7**
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. photoreceptors with charge-transporting layers containing)
IT **197234-90-5P**
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation and use in preparing charge-transporting layers for electrophotog. photoreceptors)

L74 ANSWER 33 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:612438 HCAPLUS
DOCUMENT NUMBER: 125:234385
TITLE: Positive hole-transporting material and usage thereof
INVENTOR(S): Enokida, Toshio; Tamano, Michiko; Onikubo, Shunichi
PATENT ASSIGNEE(S): Toyo Ink Mfg Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 08179526	A2	19960712	JP 1994-319695	1994 1222
JP 3269300	B2	20020325		
PRIORITY APPLN. INFO.:			JP 1994-319695	1994 1222

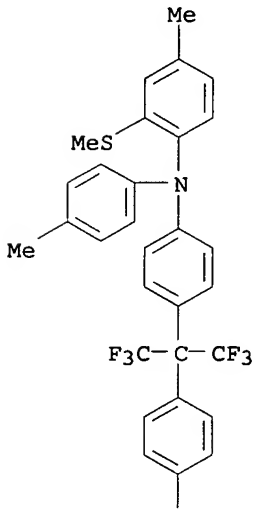
GI For diagram(s), see printed CA Issue.
AB The material has the general formula ABA [A = diamine derivative residue I ; R1-9= H, halo, (substituted) alkyl, (substituted) alkoxy, (substituted) thioalkoxy, cyano, (mono- or di-substituted) amino, OH, SH, (substituted) aryloxy, (substituted) arylthio, (substituted) aromatic ring, (substituted) heterocycle; ≥1 of each of R1-3, R4-6, and R7-9 is not H and the adjacent groups may form alicyclic, carbocyclic aromatic, or heterocyclic aromatic rings which may be substituted; X = divalent aromatic ring residue; B = alicyclic residue II ; Y = (substituted) alkyl; n = 2-7; m = 0-2n]. Organic electroluminescent devices comprising ≥1 organic compound thin film luminescent layers ≥1 of which contains the material, and electrophotog. photoreceptors containing a charge-generating agent and the material are also claimed. The material shows good pos. hole-transporting properties and high quality electroluminescent devices and photoreceptors are obtained by using it. Thus, III was used typically for the material, which was prepared by reacting cyclohexanone with 9,10-bis(4-butylphenylphenylamino)phenanthrene.
IT **181796-84-9 181796-92-9 181797-00-2**
181797-02-4
RL: DEV (Device component use); USES (Uses)

(pos. hole transporting agent for electrophotog. photoreceptor and electroluminescent device)

RN 181796-84-9 HCAPLUS

CN Benzenamine, 4,4'-(2-methylcyclohexylidene)bis[N-(2,4-dimethylphenyl)-N-[4-[2,2,2-trifluoro-1-[4-[[4-methyl-2-(methylthio)phenyl](4-methylphenyl)amino]phenyl]-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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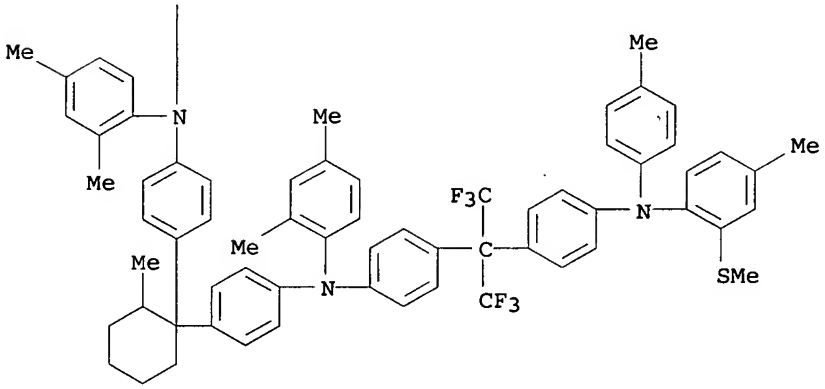
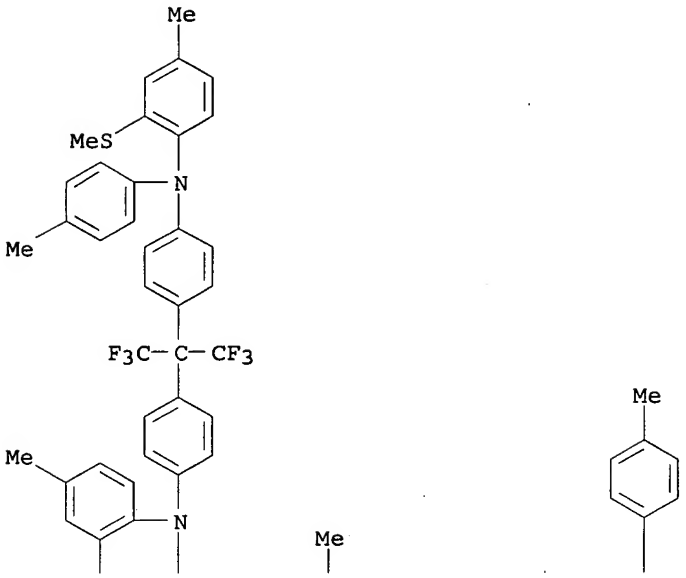


RN 181796-92-9 HCAPLUS

CN Benzenamine, 4,4'-(3-methylcyclohexylidene)bis[N-(2,4-dimethylphenyl)-N-[4-[2,2,2-trifluoro-1-[4-[[4-methyl-2-(methylthio)phenyl](4-methylphenyl)amino]phenyl]-1-(trifluoromethyl)ethyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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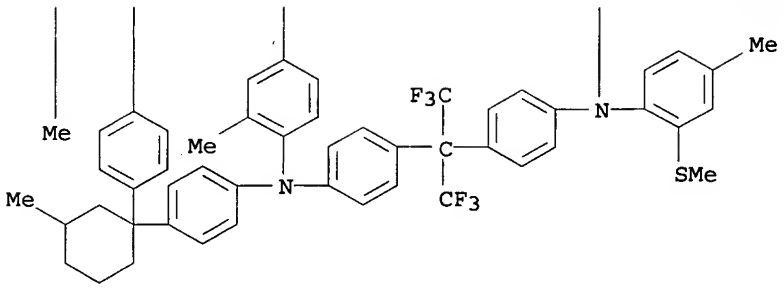
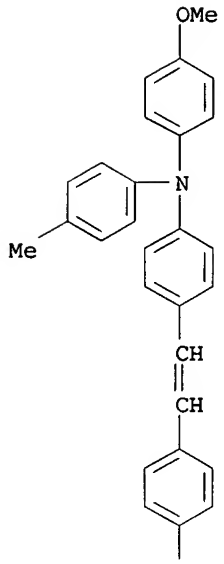
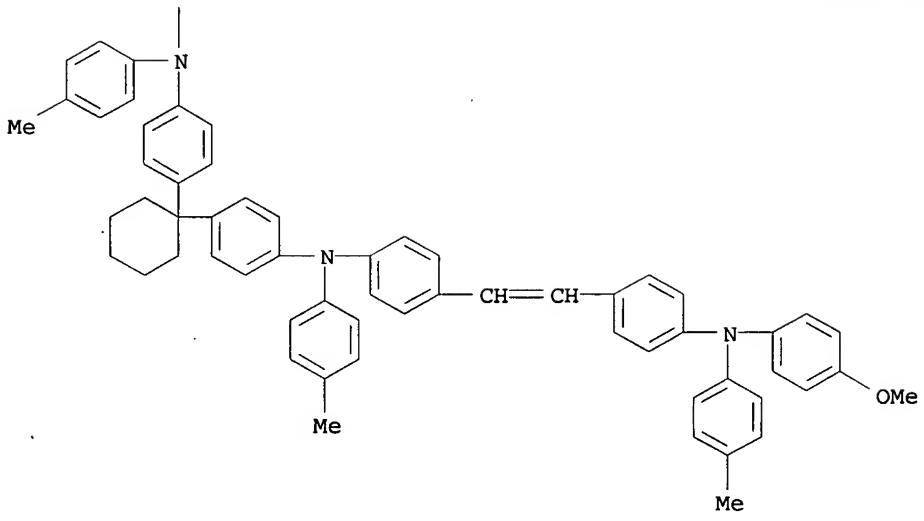


RN 181797-00-2 HCAPLUS
CN Benzenamine, 4,4'-cyclohexylidenebis[N-[4-[2-[4-[(4-methoxyphenyl)(4-methylphenyl)amino]phenyl]ethenyl]phenyl]-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

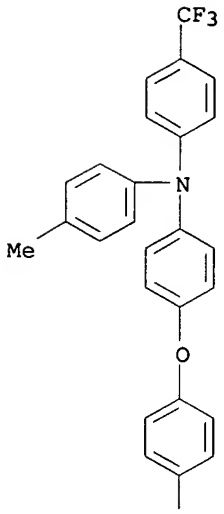


PAGE 2-A

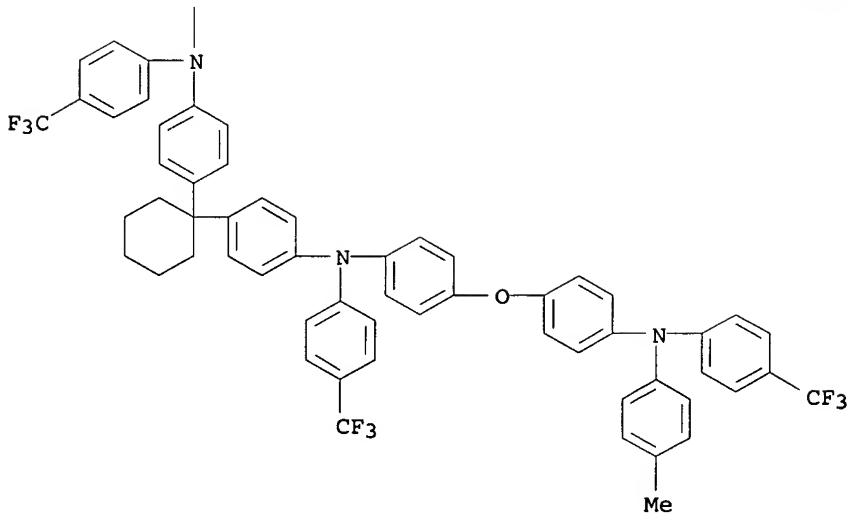


RN 181797-02-4 HCAPLUS
CN Benzenamine, 4,4'-cyclohexylidenebis[N-[4-[4-[(4-methylphenyl)[4-(trifluoromethyl)phenyl]amino]phenoxy]phenyl]-N-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC ICM G03G005-06
ICS G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 25, 76

IT Electrophotographic **photoconductors** and photoreceptors
(electrophotog. photoreceptor containing pos. hole-transporting material)

IT 181796-76-9 181796-77-0 181796-78-1 181796-79-2
181796-80-5 181796-81-6 181796-82-7 **181796-84-9**
181796-86-1 181796-88-3 181796-90-7 **181796-92-9**
181796-94-1 181796-96-3 181796-98-5 181796-99-6
181797-00-2 181797-01-3 **181797-02-4**

RL: DEV (Device component use); USES (Uses)
(pos. hole transporting agent for electrophotog. photoreceptor and electroluminescent device)

L74 ANSWER 34 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:294601 HCAPLUS
DOCUMENT NUMBER: 124:328419
TITLE: Hole-transporting material for organic electroluminescence device or electrophotographic photoreceptor
INVENTOR(S): Tamano, Michiko; Onikubo, Toshikazu; Uemura, Toshikyuki; Ogawa, Tadashi; Enokida, Toshio
PATENT ASSIGNEE(S): Toyo Ink Manufacturing Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 34 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 699654	A1	19960306	EP 1995-305450	1995 0804
EP 699654	B1	19990331		
R: DE, FR, GB				
JP 08227165	A2	19960903	JP 1995-164912	1995 0630
JP 3261930	B2	20020304		
JP 08100038	A2	19960416	JP 1995-171739	1995 0707
JP 3296147	B2	20020624		
US 5681664	A	19971028	US 1995-510535	1995 0802
PRIORITY APPLN. INFO.:			JP 1994-183198 A	1994 0804
			JP 1994-319694 A	1994 1222

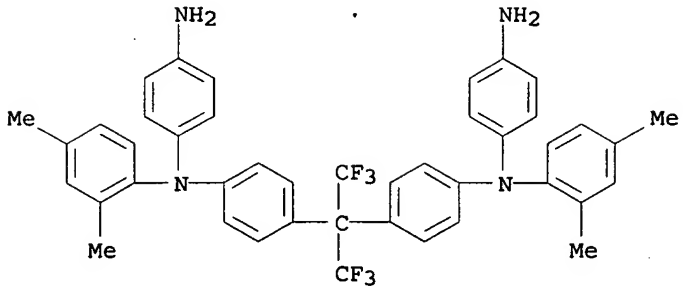
AB A hole-transporting material of formula H-A-[-B-A-]n-B-A-H has excellent hole-transporting capability and excellent durability, wherein A is a specified aromatic amine derivative residue, B is a residue, and n is an integer of 1-5000. The materials may be included in an organic EL device of an electrophotog. photoreceptor which are excellent in stability in continuous long-term use.

IT **176443-53-1 176443-54-2 176443-57-5 176443-59-7 176443-62-2 176443-70-2 176443-73-5**
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(hole-transporting material for EL device or electrophotog. photoreceptor)

RN 176443-53-1 HCAPLUS
CN 4H-Pyran-4-one, tetrahydro-, polymer with N,N''-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(2,4-dimethylphenyl)-1,4-benzenediamine] (9CI) (CA INDEX NAME)

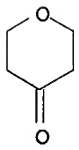
CM 1

CRN 176443-52-0
CMF C43 H38 F6 N4



CM 2

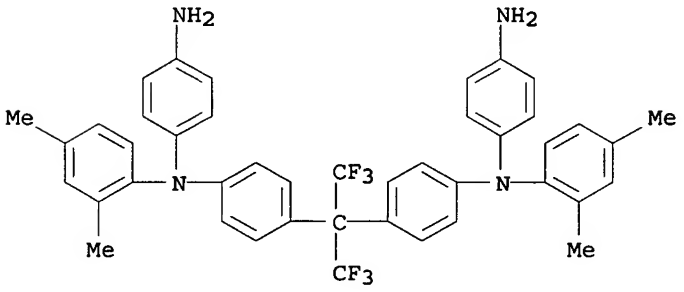
CRN 29943-42-8
CMF C5 H8 O2



RN 176443-54-2 HCAPLUS
CN 4-Piperidinone, 1-methyl-, polymer with N,N''-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(2,4-dimethylphenyl)-1,4-benzenediamine] (9CI) (CA INDEX NAME)

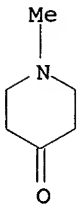
CM 1

CRN 176443-52-0
CMF C43 H38 F6 N4



CM 2

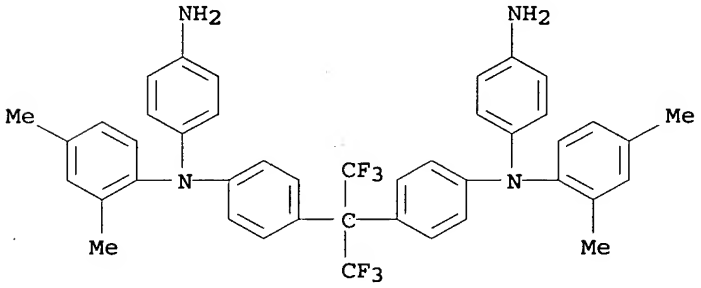
CRN 1445-73-4
CMF C6 H11 N O



RN 176443-57-5 HCAPLUS
CN Cyclohexanone, 3,4,4,5-tetramethyl-, polymer with N,N''-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(2,4-dimethylphenyl)-1,4-benzenediamine] (9CI) (CA INDEX NAME)

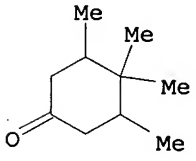
CM 1

CRN 176443-52-0
CMF C43 H38 F6 N4



CM 2

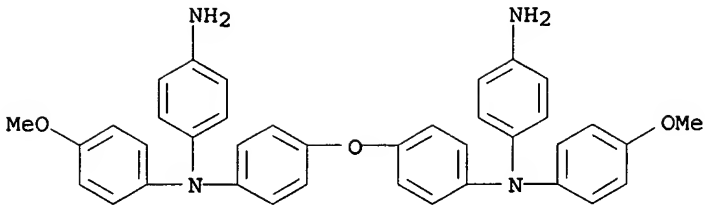
CRN 40441-50-7
CMF C10 H18 O



RN 176443-59-7 HCAPLUS
CN 4-Piperidinone, 1-methyl-, polymer with N,N''-(oxydi-4,1-phenylene)bis[N-(4-methoxyphenyl)-1,4-benzenediamine] (9CI) (CA INDEX NAME)

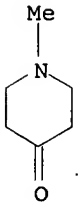
CM 1

CRN 176443-58-6
CMF C38 H34 N4 O3



CM 2

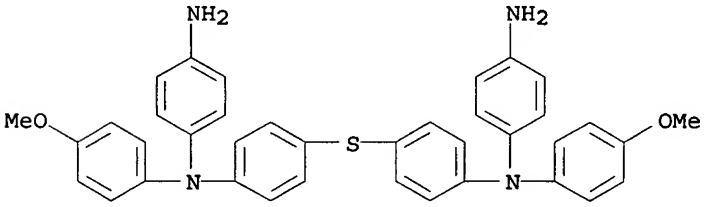
CRN 1445-73-4
CMF C6 H11 N O



RN 176443-62-2 HCAPLUS
CN 2(1H)-Naphthalenone, 3,4-dihydro-, polymer with N,N''-(thiodi-4,1-phenylene)bis[N-(4-methoxyphenyl)-1,4-benzenediamine] (9CI) (CA INDEX NAME)

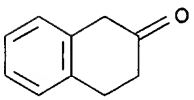
CM 1

CRN 176443-61-1
CMF C38 H34 N4 O2 S



CM 2

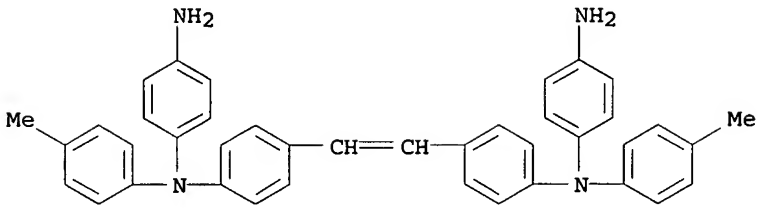
CRN 530-93-8
CMF C10 H10 O



RN 176443-70-2 HCAPLUS
CN Cyclohexanone, 3-methyl-, polymer with N,N''-(1,2-ethenediyldi-4,1-phenylene)bis[N-(4-methylphenyl)-1,4-benzenediamine] (9CI) (CA INDEX NAME)

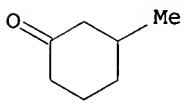
CM 1

CRN 176443-69-9
CMF C40 H36 N4



CM 2

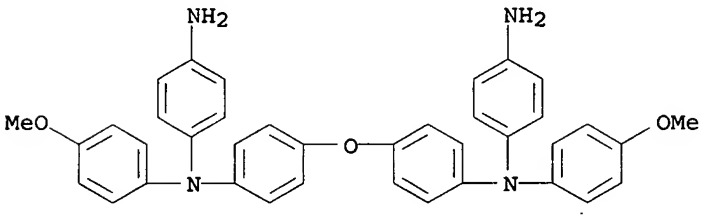
CRN 591-24-2
CMF C7 H12 O



RN 176443-73-5 HCAPLUS
CN 4H-Thiopyran-4-one, tetrahydro-, polymer with N,N''-(oxydi-4,1-phenylene)bis[N-(4-methoxyphenyl)-1,4-benzenediamine] (9CI) (CA INDEX NAME)

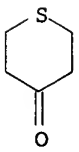
CM 1

CRN 176443-58-6
CMF C38 H34 N4 O3



CM 2

CRN 1072-72-6
CMF C5 H8 O S

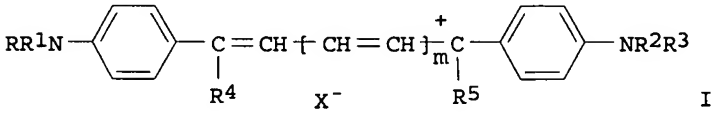


IC ICM C07C211-54
ICS C07C217-92; C07C323-36; C07C323-37; C07D211-26; C07D309-14; C07D335-02; C08G075-02; G03G005-06; G03G005-07
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electroluminescent devices
Electrophotographic **photoconductors** and photoreceptors
(hole transporting material for)
IT 176443-14-4 176443-25-7 176443-27-9 176443-29-1
176443-31-5 176443-32-6 176443-34-8 176443-36-0
176443-38-2 176443-40-6 176443-42-8 176443-43-9
176443-45-1 176443-46-2 176443-47-3 176443-48-4
176443-50-8 176443-51-9 **176443-53-1**
176443-54-2 176443-56-4 **176443-57-5**
176443-59-7 176443-60-0 **176443-62-2**
176443-64-4 176443-66-6 176443-68-8 **176443-70-2**
176443-72-4 **176443-73-5** 176443-75-7 176443-77-9
176443-79-1 176443-81-5 176443-83-7
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(hole-transporting material for EL device or electrophotog. photoreceptor)

L74 ANSWER 35 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:712147 HCAPLUS
DOCUMENT NUMBER: 121:312147
TITLE: optical recording medium with superior heat-resistance and its manufacture
INVENTOR(S): Tamura, Miki; Santo, Takeshi; Mihara, Cheko
PATENT ASSIGNEE(S): Canon Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06024145	A2	19940201	JP 1993-83413	1993 0409
PRIORITY APPLN. INFO.:			JP 1992-145045 A1	1992 0512

GI



I

AB The title recording medium contains an organic dye I (R0-5 = H, monovalent organic residue; at least 1 of R0-3 containing F; m = 0-2; X = anion) in its recording layer. The optical recording medium is manufactured by coating a solution containing the above org dye on a substrate to form the recording layer.
IT **158519-82-5**
RL: USES (Uses)

(dye, optical recording medium containing)
RN 158519-82-5 HCAPLUS
CN Pentadienylium, 1,5-bis[4-[bis[4-(trifluoromethyl)phenyl]amino]phenyl]-1,5-bis[4-(dimethylamino)phenyl]-, (OC-6-11)-hexafluoroantimonate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 158519-81-4
CMF C61 H47 F12 N4

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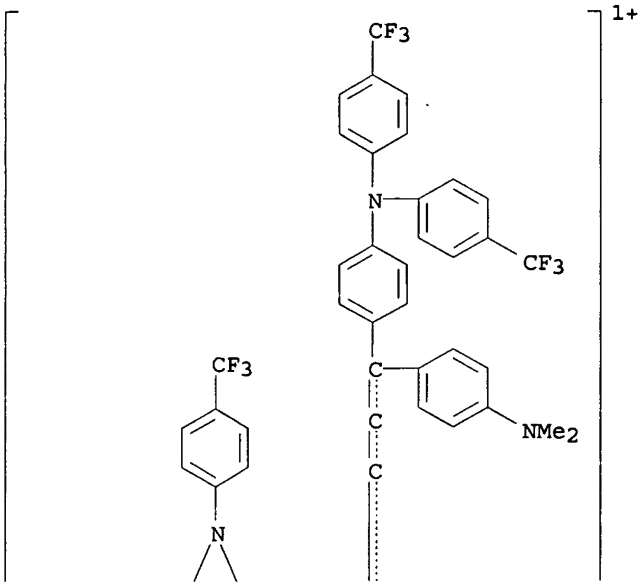
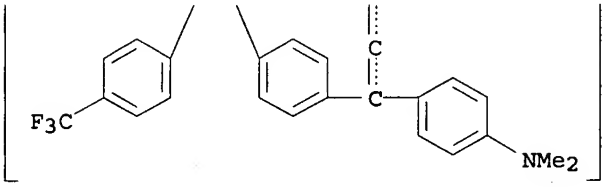


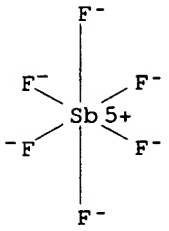
PAGE 2-A



*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

CRN 17111-95-4
CMF F6 Sb
CCI CCS



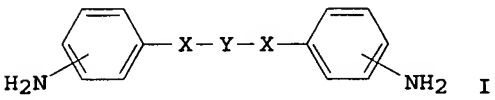
IC ICM B41M005-26
ICS G11B007-24
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 41
IT 158519-72-3 158519-74-5 158519-75-6 158519-77-8
158519-78-9 158519-80-3 **158519-82-5** 158519-84-7
158519-86-9 158519-87-0 158519-89-2 158519-91-6
158519-93-8 158519-95-0 158519-97-2 158519-99-4
158520-01-5 158520-02-6 158520-04-8 158520-06-0
158520-07-1 158520-09-3D, derivs 158520-11-7
RL: USES (Uses)
(dye, optical recording medium containing)

L74 ANSWER 36 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:641953 HCAPLUS
DOCUMENT NUMBER: 121:241953
TITLE: Liquid crystal display having polyimide orientation film
INVENTOR(S): Nozaki, Choji; Imamura, Naoya
PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05158048	A2	19930625	JP 1991-326131	19911210

PRIORITY APPLN. INFO.: JP 1991-326131 19911210

GI



I

AB At least 1 of orientation films formed on a pair of substrates of a liquid crystal display comprises a polyimide prepared from ≥1 kind(s) of diamine compds. I (X = CONR1, NR1CO, SO2NR1, NR1SO2, NR1CONR2, CONR1CO; R1, R2 = H, alkyl, aryl; Y = divalent group having benzene ring) and a tetracarboxylic acid derivative selected from tetracarboxylic acids, tetracarboxylic diesters,

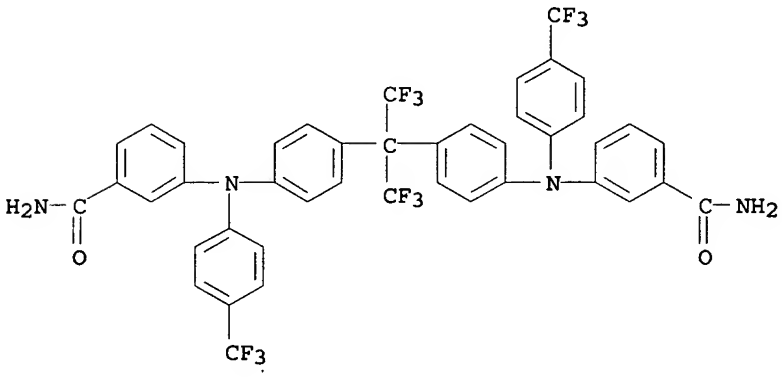
tetracarboxylic tetraesters, or tetracarboxylic dianhydrides. The orientation film can be prepared by coating; it shows large pretilt angle obtainable only from an obliquely deposited SiO orientation film.

IT **156562-18-4P 156562-19-5P**
RL: PREP (Preparation)
(films, preparation and use of, as liquid crystal orientation film)

RN 156562-18-4 HCAPLUS
CN Benzamide, 3,3'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[4,1-phenylene[[4-(trifluoromethyl)phenyl]imino]]]bis-, polymer with 1H,3H-benzo[1,2-c:4,5-c']difuran-1,3,5,7-tetrone (9CI) (CA INDEX NAME)

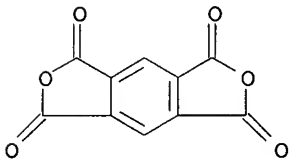
CM 1

CRN 156562-17-3
CMF C43 H28 F12 N4 O2



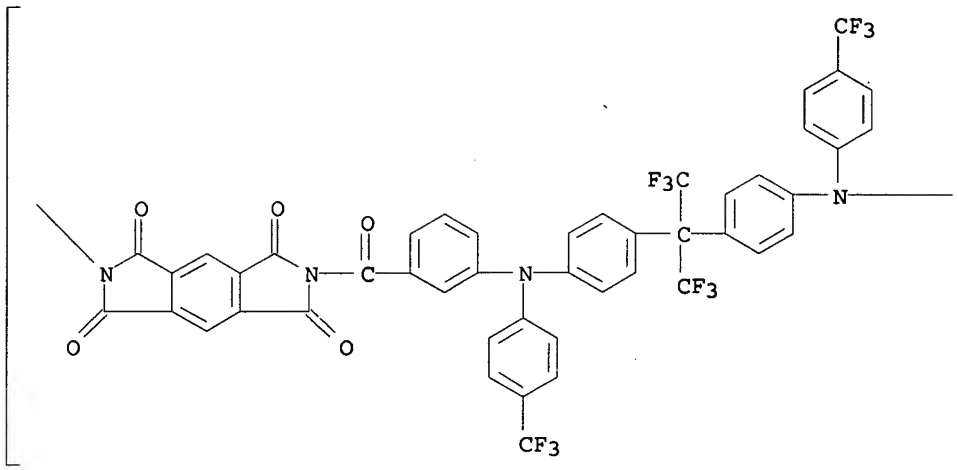
CM 2

CRN 89-32-7
CMF C10 H2 O6

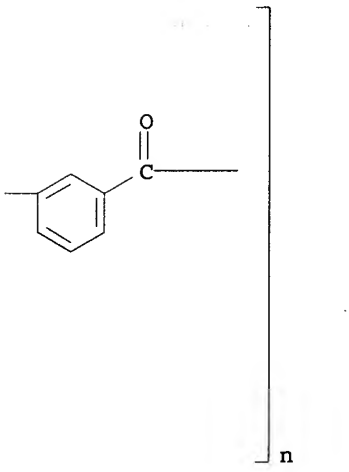


RN 156562-19-5 HCAPLUS
CN Poly[(5,7-dihydro-1,3,5,7-tetraoxobenzo[1,2-c:4,5-c']dipyrrole-2,6(1H,3H)-diyl)carbonyl-1,3-phenylene[[4-(trifluoromethyl)phenyl]imino]-1,4-phenylene[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]-1,4-phenylene[[4-(trifluoromethyl)phenyl]imino]-1,3-phenylenecarbonyl] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G02F001-1337
ICS G02F001-1337

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)

IT 156562-00-4P 156562-01-5P 156562-02-6P 156562-03-7P
156562-04-8P 156562-05-9P 156562-06-0P 156562-07-1P
156562-09-3P 156562-10-6P 156562-12-8P 156562-13-9P
156562-15-1P 156562-16-2P **156562-18-4P**
156562-19-5P 156562-21-9P 156562-22-0P 156562-24-2P
156562-25-3P 156562-27-5P 156562-28-6P 156562-30-0P
156562-31-1P 156562-33-3P 156562-34-4P 156562-36-6P
156562-37-7P 156562-38-8P 156562-39-9P 156562-40-2P
156562-41-3P 156562-42-4P 156562-43-5P 156562-44-6P
156562-45-7P 156562-46-8P 156562-47-9P 156562-48-0P
156562-49-1P 156562-50-4P 156562-51-5P 156562-52-6P
156562-53-7P 156562-54-8P 158453-14-6P 158453-15-7P
158453-16-8P 158453-17-9P 158453-18-0P 158453-19-1P
158453-20-4P 158453-21-5P 158453-22-6P 158453-23-7P

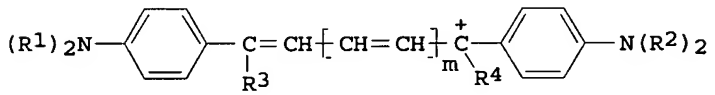
158453-24-8P 158453-25-9P 158453-26-0P 158453-27-1P
158453-28-2P 158453-29-3P 158453-30-6P 158453-31-7P
158453-32-8P 158453-33-9P 158453-34-0P
RL: PREP (Preparation)
(films, preparation and use of, as liquid crystal orientation film)

L74 ANSWER 37 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:311782 HCAPLUS
DOCUMENT NUMBER: 120:311782
TITLE: Optical recording medium, its manufacture and recording method using same
INVENTOR(S): Santo, Takeshi; Mihara, Cheko; Sugata, Hiroyuki
PATENT ASSIGNEE(S): Canon Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05112078	A2	19930507	JP 1992-101321	19920421
JP 3005111	B2	20000131		

PRIORITY APPLN. INFO.: JP 1991-126527 A1 19910501

OTHER SOURCE(S): MARPAT 120:311782
GI



I

AB The title optical recording medium comprises on its substrate a recording layer containing a polymethine compound I [R1,2 = alkyl- or alkoxy-substituted aryl; R3,4 = aryl, heterocyclyl, styryl; m = 0, 1, 2; X- = anionic residue]. The recording medium is manufactured by coating a substrate with a solution containing the above polymethine compound The title optical recording is effected by irradiating the recording medium with a light beam modulated based on information to be recorded. High sensitivity is achieved.

IT **155217-86-0 155217-88-2 155217-90-6**
155217-92-8 155217-94-0 155217-96-2
155217-98-4 155218-00-1 155218-02-3
RL: TEM (Technical or engineered material use); USES (Uses)
(optical recording material containing)

RN 155217-86-0 HCAPLUS

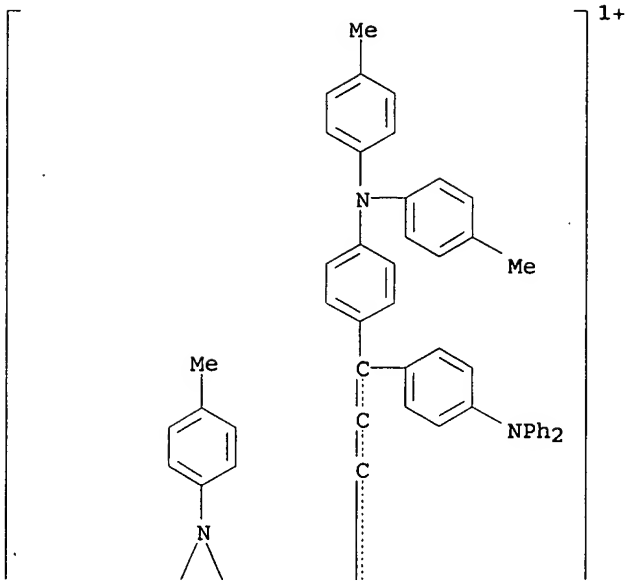
CN Pentadienylium, 1,5-bis[4-[bis(4-methylphenyl)amino]phenyl]-1,5-bis[4-(diphenylamino)phenyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

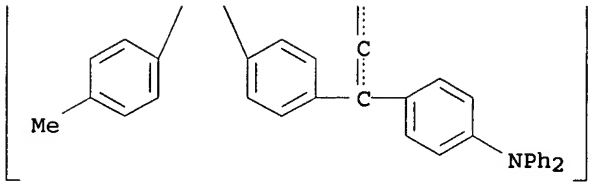
CRN 155217-85-9

CMF C81 H67 N4

PAGE 1-A



PAGE 2-A



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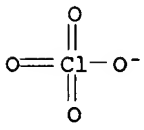
CRN 14797-73-0
CMF Cl O4

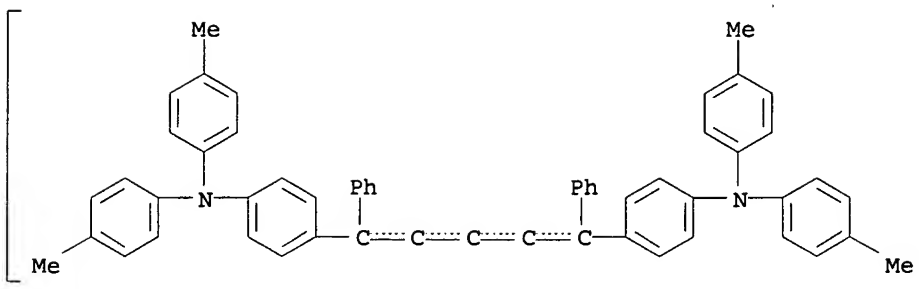


RN 155217-88-2 HCAPLUS
CN Pentadienylium, 1,5-bis[4-[bis(4-methylphenyl)amino]phenyl]-1,5-diphenyl-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 155217-87-1
CMF C57 H49 N2

PAGE 1-A



PAGE 1-B

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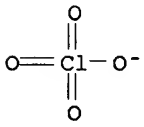
CMF Cl O4

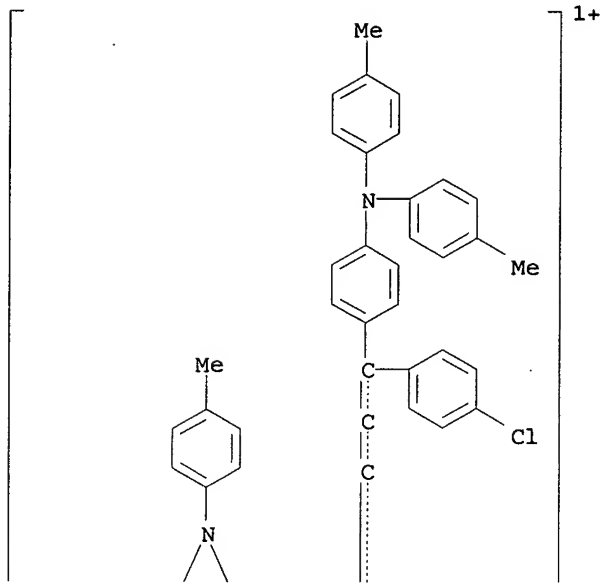


RN 155217-90-6 HCAPLUS
CN Pentadienylium, 1,5-bis[4-[bis(4-methylphenyl)amino]phenyl]-1,5-bis(4-chlorophenyl)-, tetrafluoroborate(1-) (9CI) (CA INDEX NAME)

CM 1

CRN 155217-89-3
CMF C57 H47 Cl2 N2

PAGE 1-A



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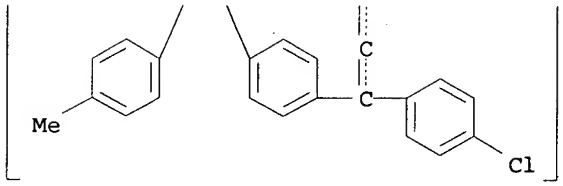

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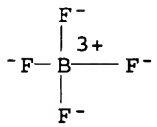
CRN 14874-70-5
CMF B F4
CCI CCS



RN 155217-92-8 HCAPLUS
CN Pentadienylium, 1,5-bis[4-[bis(4-methylphenyl)amino]phenyl]-1,5-bis[4-[bis(phenylmethyl)amino]phenyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 155217-91-7
CMF C85 H75 N4

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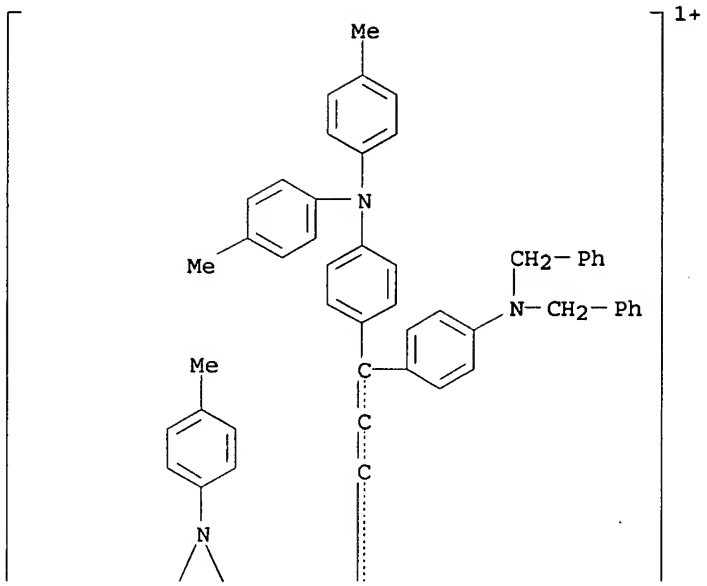

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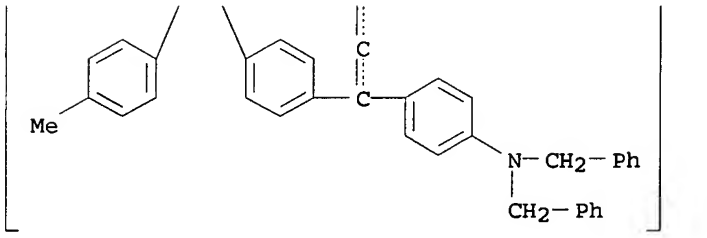
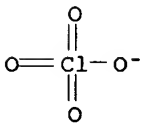


*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

CRN 14797-73-0
CMF Cl O4



RN 155217-94-0 HCAPLUS
CN Pentadienylium, 1,1,5,5-tetrakis[4-[bis(4-methylphenyl)amino]phenyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 155217-93-9
CMF C85 H75 N4

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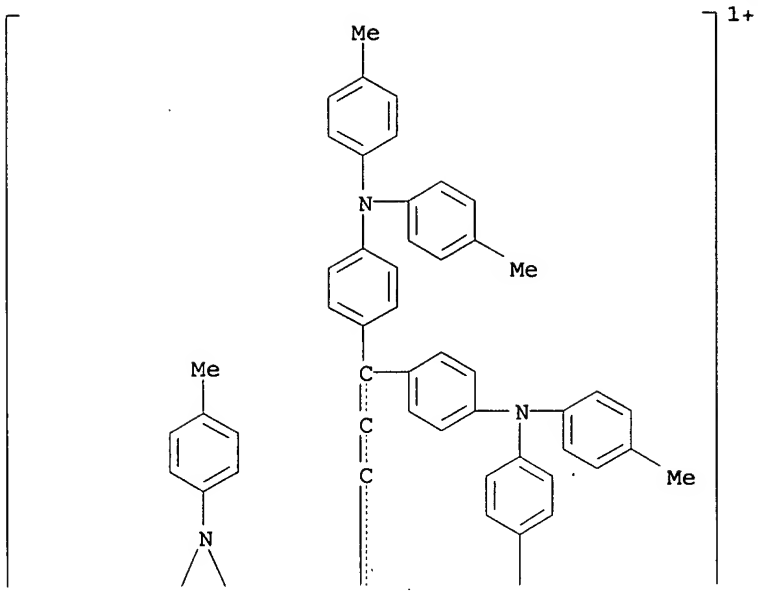

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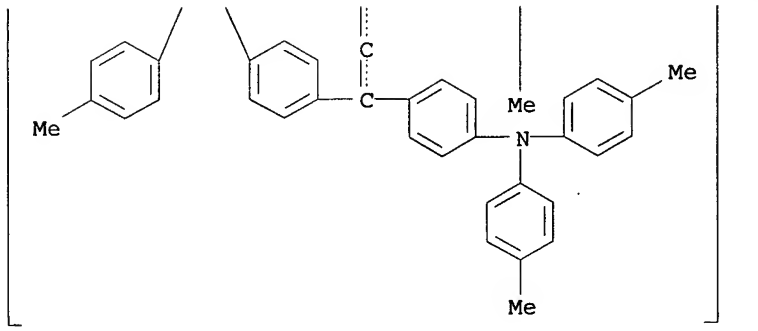
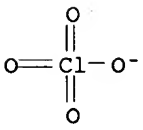


*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

CRN 14797-73-0
CMF Cl O4

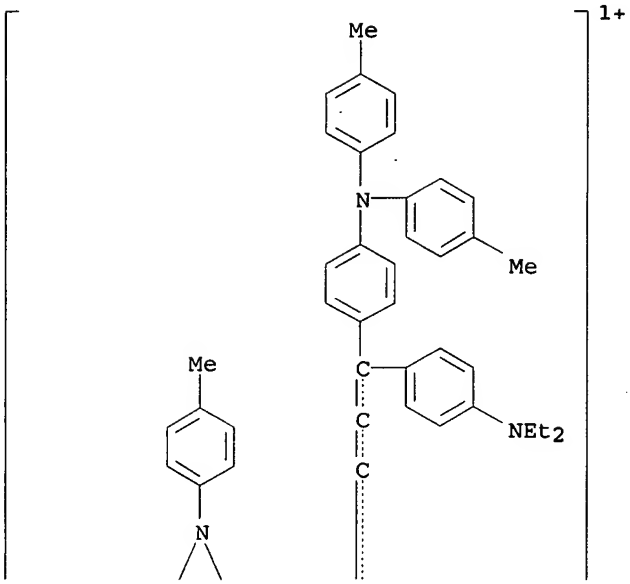


RN 155217-96-2 HCAPLUS
CN Pentadienylium, 1,5-bis[4-[bis(4-methylphenyl)amino]phenyl]-1,5-bis[4-(diethylamino)phenyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 155217-95-1
CMF C65 H67 N4

PAGE 1-A



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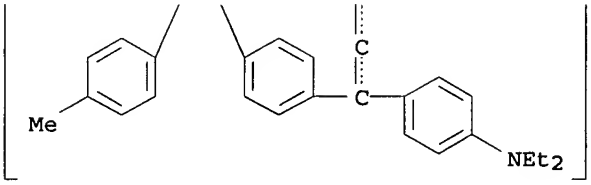
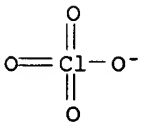


*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

CRN 14797-73-0
CMF Cl O4



RN 155217-98-4 HCAPLUS
CN Pentadienylium, 1,5-bis[4-[bis(4-methoxyphenyl)amino]phenyl]-1,5-bis[4-(diphenylamino)phenyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 155217-97-3

CMF C81 H67 N4 O4

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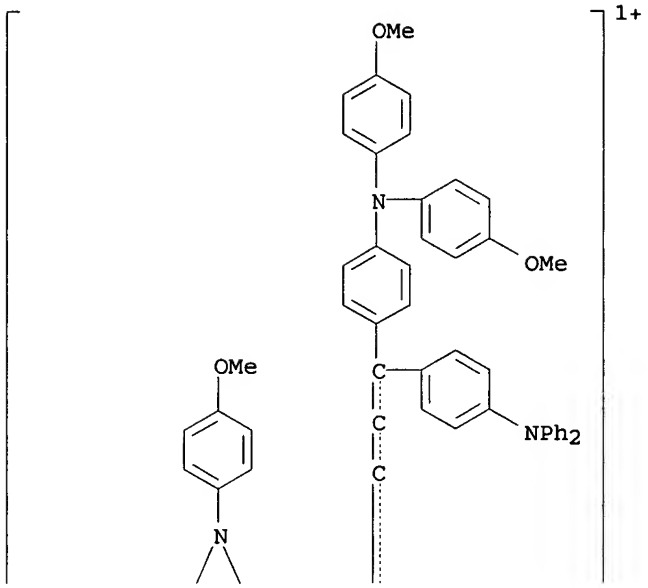

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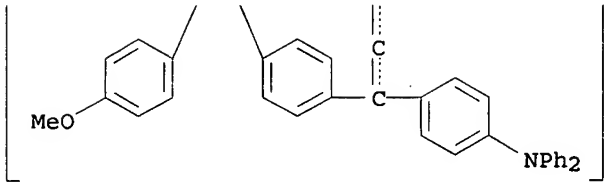

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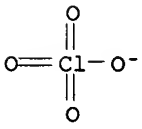
CM 2

CRN 14797-73-0
CMF Cl O4



RN 155218-00-1 HCAPLUS
CN Pentadienylium, 1,1,5,5-tetrakis[4-[bis(4-methoxyphenyl)amino]phenyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 155217-99-5
CMF C85 H75 N4 O8

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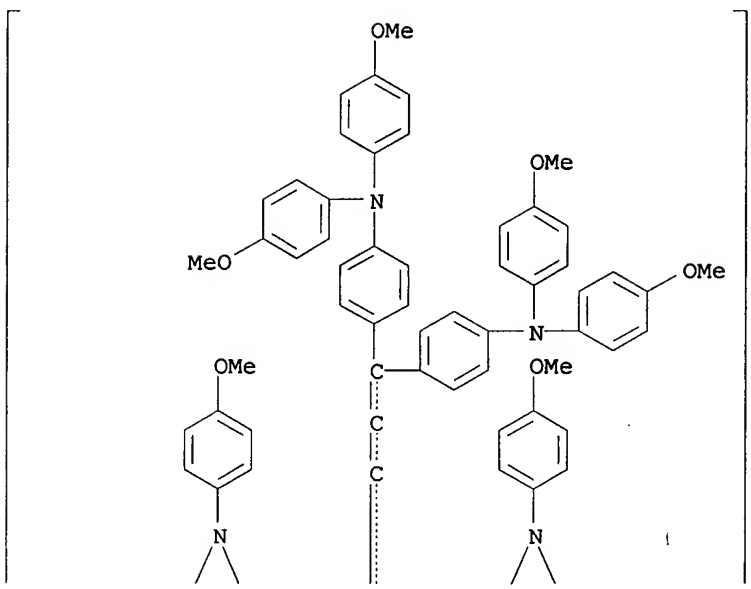

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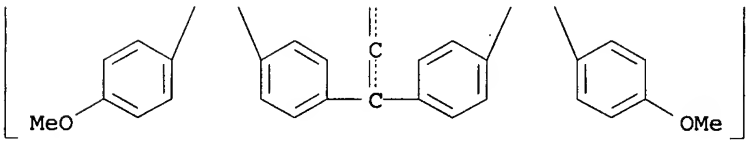
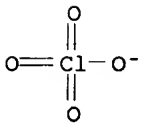


*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

CRN 14797-73-0
CMF Cl O4



RN 155218-02-3 HCAPLUS
CN Pentadienylium, 1,5-bis[4-[bis(2,4-dimethylphenyl)amino]phenyl]-1,5-bis[4-[bis(4-methylphenyl)amino]phenyl]-, perchlorate (9CI) (CA INDEX NAME)

CM 1

CRN 155218-01-2
CMF C89 H83 N4

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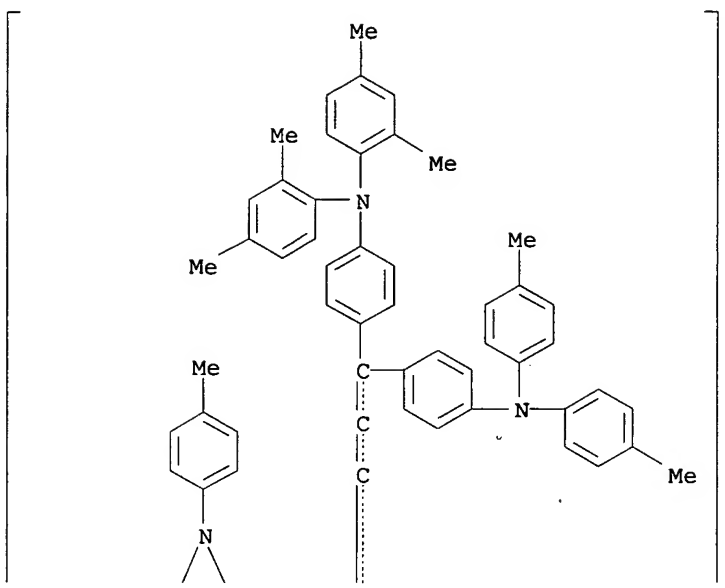

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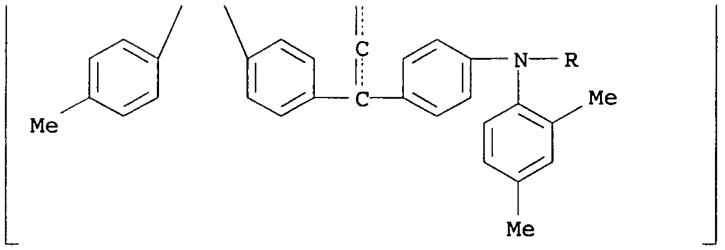

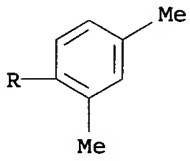

*** FRAGMENT DIAGRAM IS INCOMPLETE ***

CM 2

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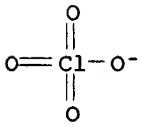
CMF Cl O4



IC ICM B41M005-26
ICS G11B007-24
CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT **155217-86-0 155217-88-2 155217-90-6**
155217-92-8 155217-94-0 155217-96-2
155217-98-4 155218-00-1 155218-02-3
RL: TEM (Technical or engineered material use); USES (Uses)
(optical recording material containing)

L74 ANSWER 38 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:311440 HCAPLUS
DOCUMENT NUMBER: 120:311440
TITLE: Durable electrophotographic photoreceptor
INVENTOR(S): Sasaki, Masaomi; Ariga, Tamotsu; Shimada, Tomoyuki; Adachi, Hiroshi
PATENT ASSIGNEE(S): Ricoh Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05150476	A2	19930618	JP 1991-337673	19911127
JP 3289049	B2	20020604		
PRIORITY APPLN. INFO.:			JP 1991-337673	19911127

OTHER SOURCE(S): MARPAT 120:311440
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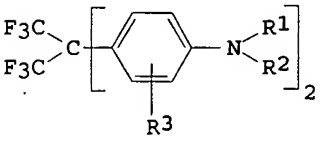
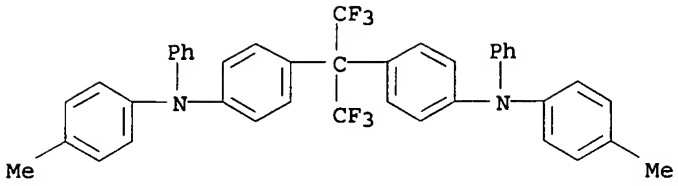
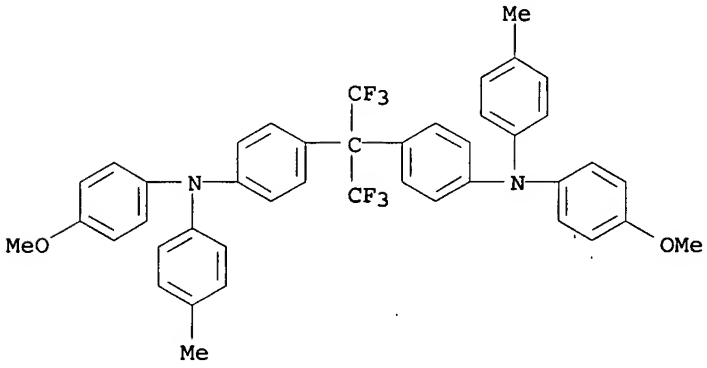


I

AB The title electrophotog. photoreceptor possesses a photosensitive layer containing ≥ 1 I [R1, R2 = H, alkyl, aryl; R3 = alkyl, OH, alkoxy; R1 and R2 may not be H simultaneously]. The photoreceptor shows improved photosensitivity and is resistant to thermal and mech. shock.
IT **149685-53-0 149685-54-1 149685-55-2**
155081-12-2 155081-13-3 155081-14-4
RL: USES (Uses)
(electrophotog. photoreceptor photosensitive layer containing)
RN 149685-53-0 HCAPLUS
CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N-(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)



RN 149685-54-1 HCAPLUS
CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N-(4-methoxyphenyl)-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 149685-55-2 HCAPLUS
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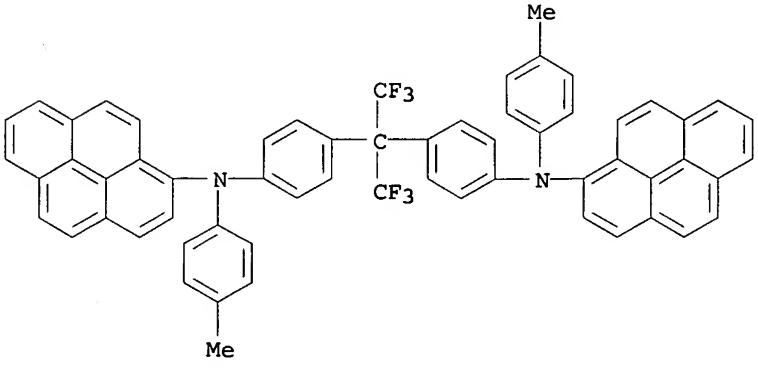

RN 155081-12-2 HCAPLUS
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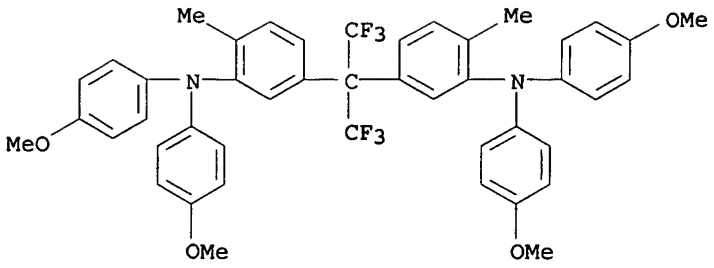
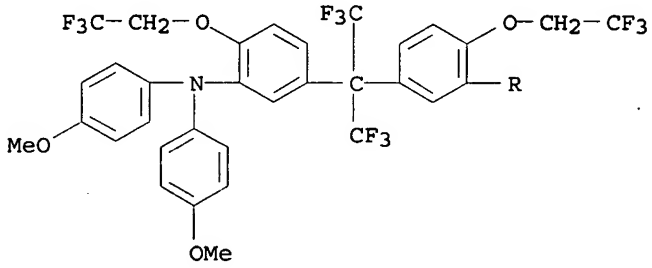


RN 155081-13-3 HCAPLUS
CN Benzenamine, 3,3'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N,N-bis(4-methoxyphenyl)-6-(2,2,2-trifluoroethoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A



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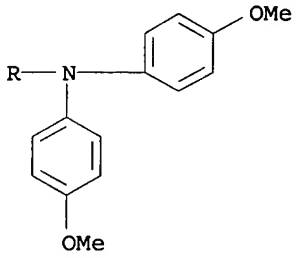

RN 155081-14-4 HCAPLUS
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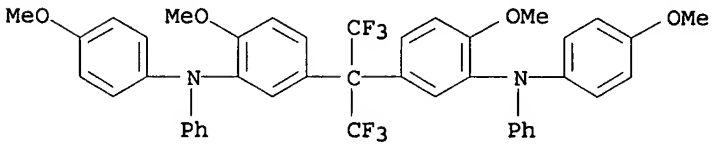
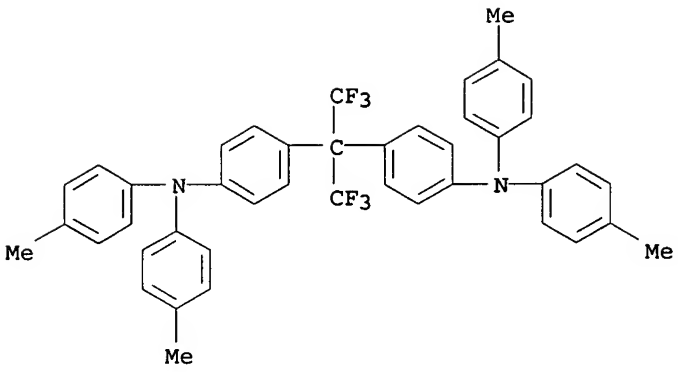


IT **149685-52-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of)
RN 149685-52-9 HCAPLUS
CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



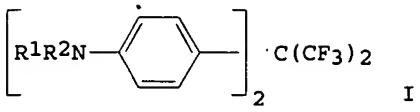
IC ICM G03G005-06
ICS G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors** and photoreceptors
(photosensitivity-improved, amine additive for)
IT 149685-49-4 149685-50-7 **149685-53-0**
149685-54-1 149685-55-2 155081-11-1
155081-12-2 155081-13-3 155081-14-4
RL: USES (Uses)
(electrophotog. photoreceptor photosensitive layer containing)
IT **149685-52-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of)

L74 ANSWER 39 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1993:549472 HCAPLUS
DOCUMENT NUMBER: 119:149472
TITLE: Preparation of 2,2-bis(aminophenyl)hexafluoropropane derivatives as electrophotographic photoreceptor charge-transporting agents
INVENTOR(S): Sasaki, Masaomi; Ariga, Tamotsu; Shimada, Tomoyuki; Adachi, Hiroshi
PATENT ASSIGNEE(S): Ricoh Kk, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05112509	A2	19930507	JP 1991-297915	1991 1018

PRIORITY APPLN. INFO.: JP 1991-297915 1991 1018

GI



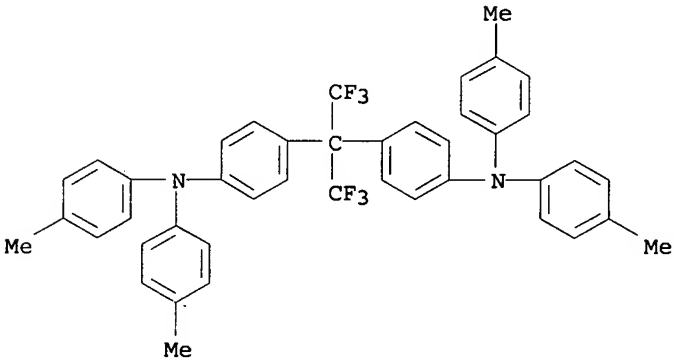
I

AB The title derivs. I [R1-2 = (un)substituted alkyl, (un)substituted aryl; R1 and/or R2 = substituent] are claimed.

IT **149685-52-9P 149685-53-0P 149685-54-1P 149685-55-2P**
RL: PREP (Preparation)
(preparation of, as electrophotog. photoreceptor charge-transporting agent)

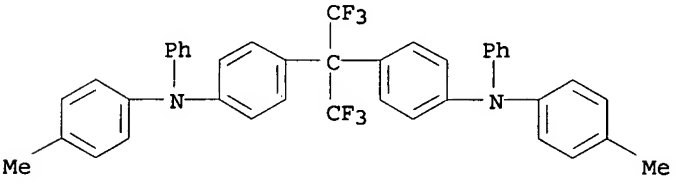
RN 149685-52-9 HCAPLUS

CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N,N-bis(4-methylphenyl)- (9CI) (CA INDEX NAME)



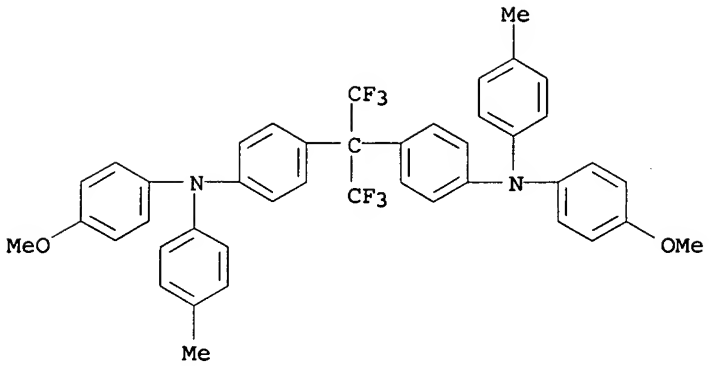
RN 149685-53-0 HCAPLUS

CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N-(4-methylphenyl)-N-phenyl- (9CI) (CA INDEX NAME)

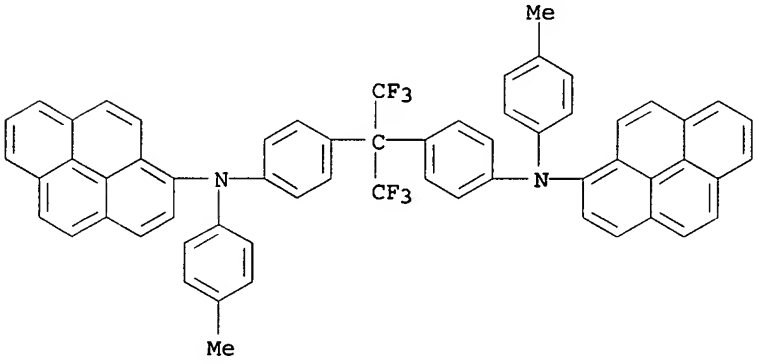


RN 149685-54-1 HCAPLUS

CN Benzenamine, 4,4'-[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]bis[N-(4-methoxyphenyl)-N-(4-methylphenyl)- (9CI) (CA INDEX NAME)



RN 149685-55-2 HCAPLUS
CN 1-Pyrenamine, N,N'-[[2,2,2-trifluoro-1-(trifluoromethyl)ethylidene]di-4,1-phenylene]bis[N-(4-methylphenyl)- (9CI) (CA INDEX NAME)



IC ICM C07C211-56
ICS G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 25
IT Electrophotographic **photoconductors** and photoreceptors
(bis(substituted-aminophenyl)hexafluoropropanes as charge-transporting agents for)
IT 149685-49-4P 149685-50-7P 149685-51-8P **149685-52-9P**
149685-53-0P 149685-54-1P 149685-55-2P
RL: PREP (Preparation)
(preparation of, as electrophotog. photoreceptor charge-transporting agent)

L74 ANSWER 40 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:643937 HCAPLUS
DOCUMENT NUMBER: 115:243937
TITLE: Electrophotographic photoreceptor
INVENTOR(S): Makino, Naonori; Hoshi, Satoshi; Kitatani, Katsushi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02304453	A2	19901218	JP 1989-125382	1989 0518
PRIORITY APPLN. INFO.:			JP 1989-125382	1989 0518

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

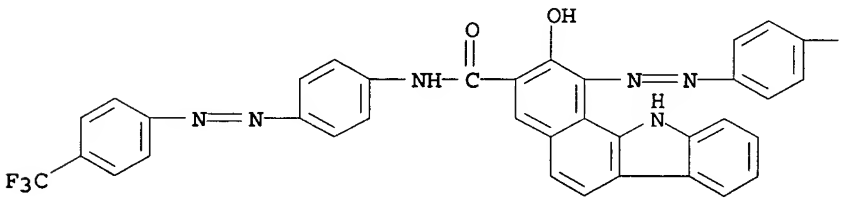
AB The title photoreceptor comprises either a layer containing charge transport substances and charge generating substances on an elec. conductive support or a layer containing charge transport substances and a layer containing charge generating substances on an elec. conductive support. The title photoreceptor contains azo compds. with moiety Q1 (Ar2 = arylene, heteroarylene; Ar3 = aromatic hydrocarbon, aromatic heterocyclyl; X = atoms forming aromatic or heterocyclic moiety with ring fused to the benzene ring which has the OH substituent). The said azo compds. are charge-generating substances. Azo compound I (A = Q2) is a charge generating substance.

IT **137309-63-8 137337-71-4**
RL: USES (Uses)
(charge-generating substance, in electrophotog. photoreceptor)

RN 137309-63-8 HCAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-[4-[[4-(trifluoromethyl)phenyl]azo]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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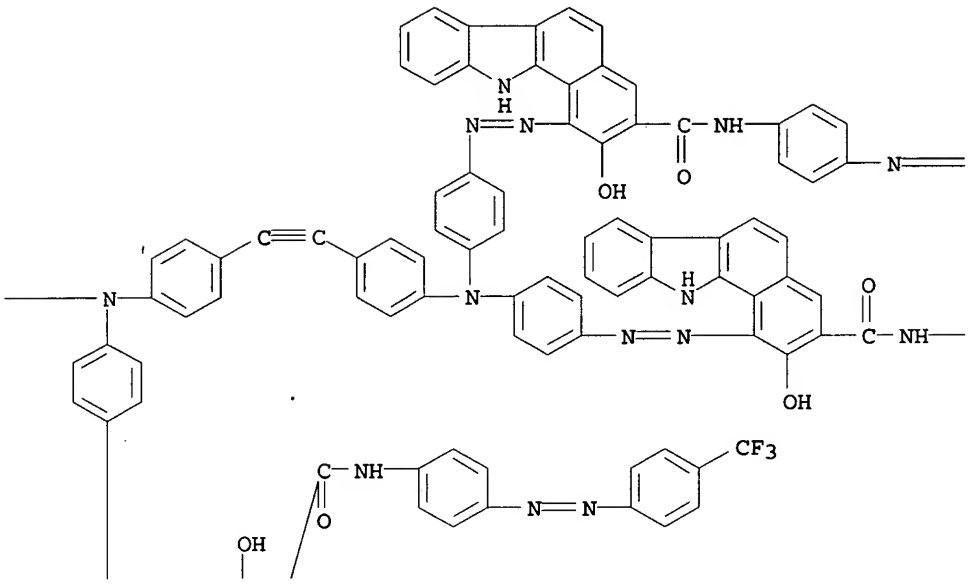

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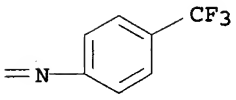

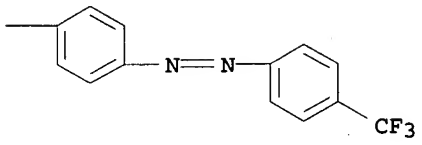

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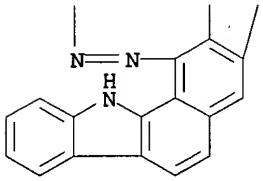
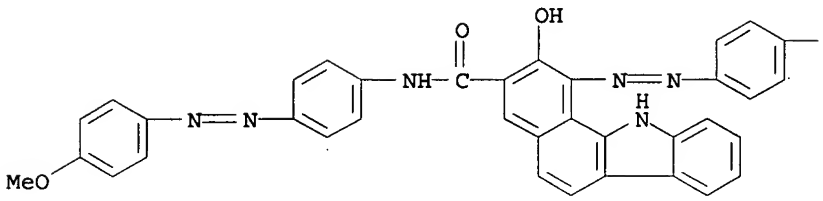


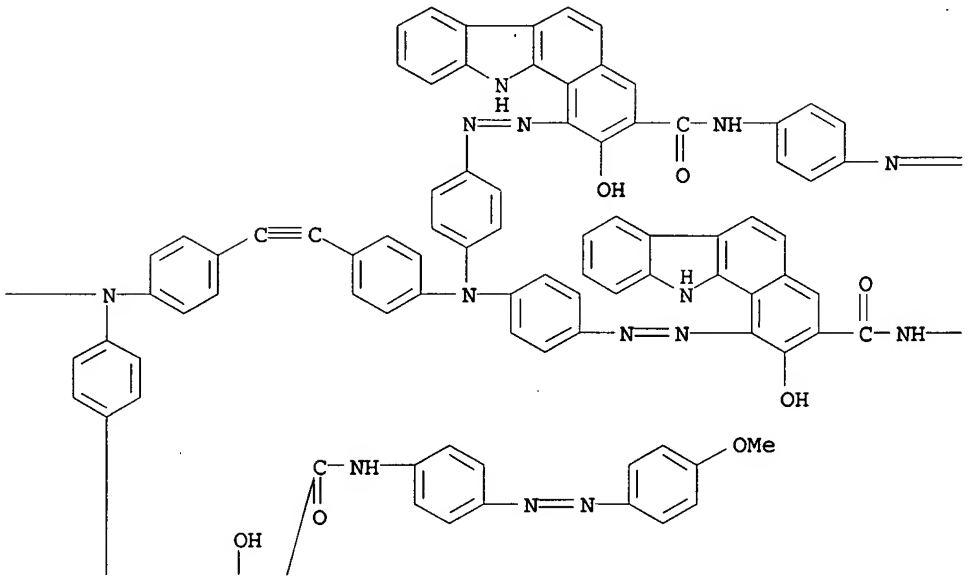
RN 137337-71-4 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-[4-[(4-

methoxyphenyl)azo]phenyl]- (9CI) (CA INDEX NAME)

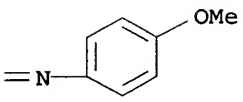
PAGE 1-A

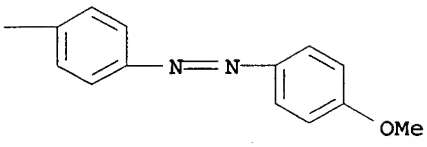


PAGE 1-B



PAGE 1-C





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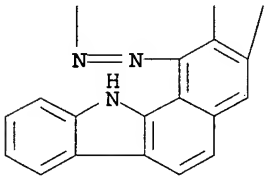
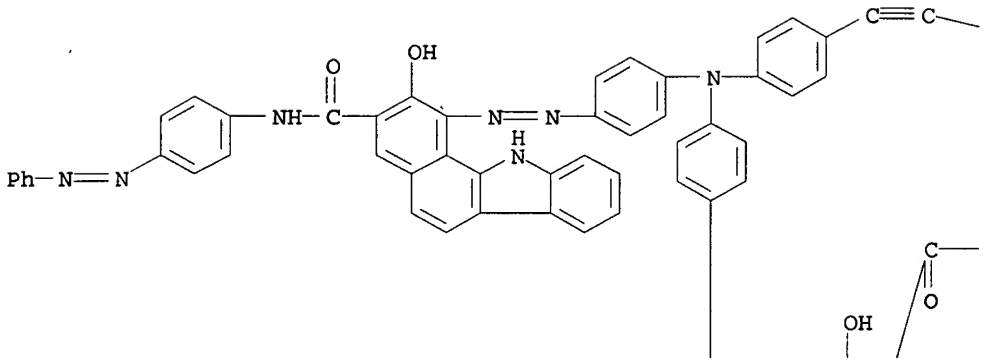


IT **137309-46-7P**
RL: PREP (Preparation)
(preparation of, as material for electrophotog. photoreceptor)
RN 137309-46-7 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-[4-(phenylazo)phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



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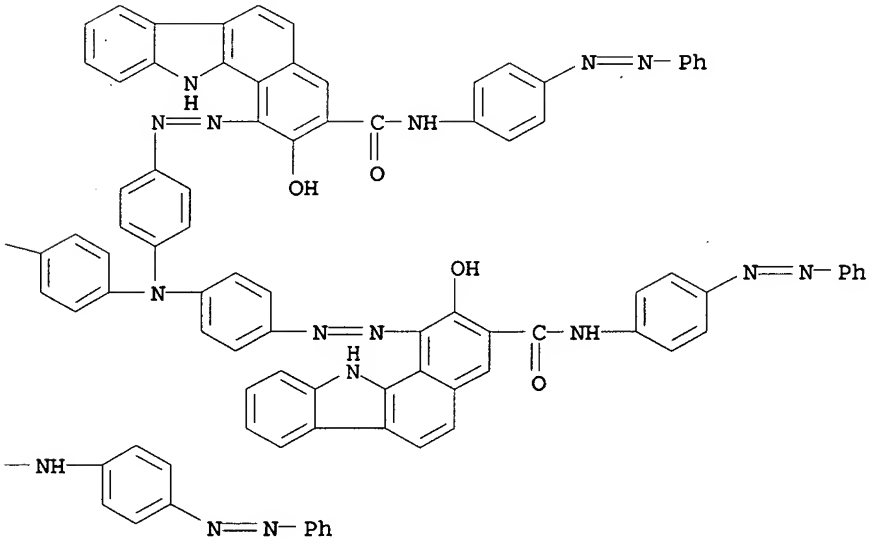

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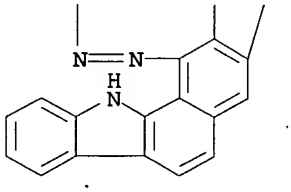
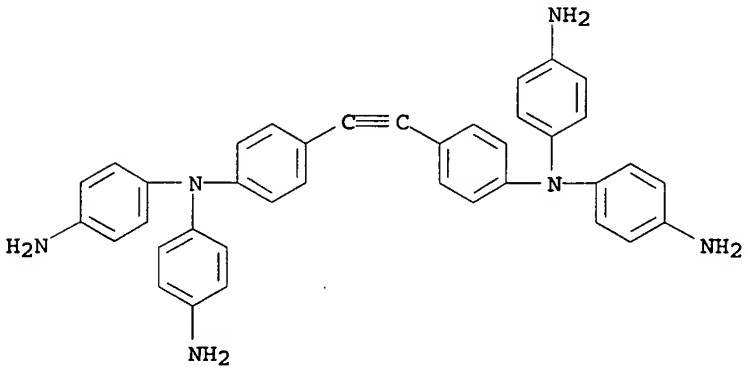


IT **132469-78-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of material for electrophotog. photoreceptor)
RN 132469-78-4 HCAPLUS
CN 1,4-Benzenediamine, N,N''-(1,2-ethynediyldi-4,1-phenylene)bis[N-(4-aminophenyl)- (9CI) (CA INDEX NAME)



IC ICM G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors**
(azo compds. for)
IT 137309-47-8 137309-48-9 137309-49-0 137309-50-3
137309-51-4 137309-52-5 137309-53-6 137309-54-7
137309-55-8 137309-56-9 137309-57-0 137309-58-1
137309-59-2 137309-60-5 137309-61-6 137309-62-7
137309-63-8 137309-64-9 137309-65-0 137309-66-1
137337-68-9 137337-69-0 137337-70-3 **137337-71-4**
RL: USES (Uses)
(charge-generating substance, in electrophotog. photoreceptor)
IT **137309-46-7P**
RL: PREP (Preparation)
(preparation of, as material for electrophotog. photoreceptor)
IT 60-09-3 84-43-5 **132469-78-4**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in preparation of material for electrophotog. photoreceptor)

L74 ANSWER 41 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:111846 HCAPLUS
DOCUMENT NUMBER: 114:111846
TITLE: Electrophotographic photoreceptor
INVENTOR(S): Kitatani, Katsushi; Makino, Naonori; Hoshi, Satoshi; Sato, Hideo; Ono, Shigeru
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 02108061	A2	19900419	JP 1988-262200	1988 1018

JP 2515145	B2	19960710		
US 4985324	A	19910115	US 1989-421901	1989 1016
PRIORITY APPLN. INFO.:			JP 1988-262200	A 1988 1018

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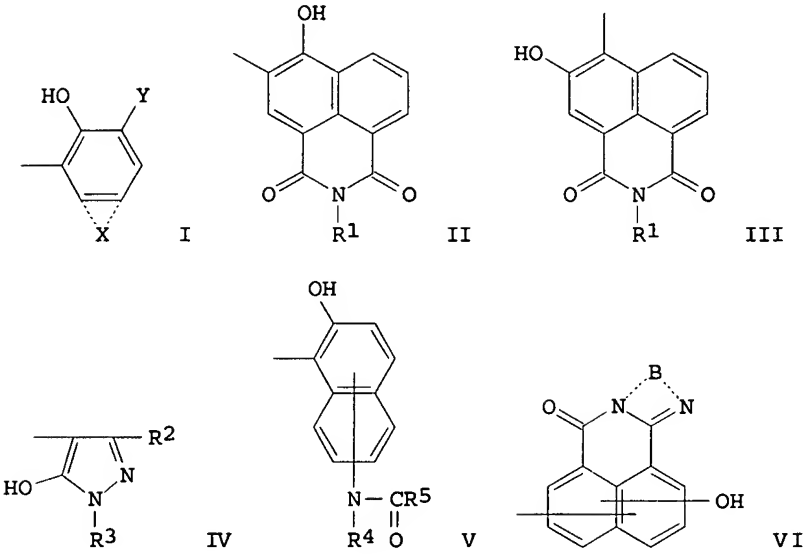


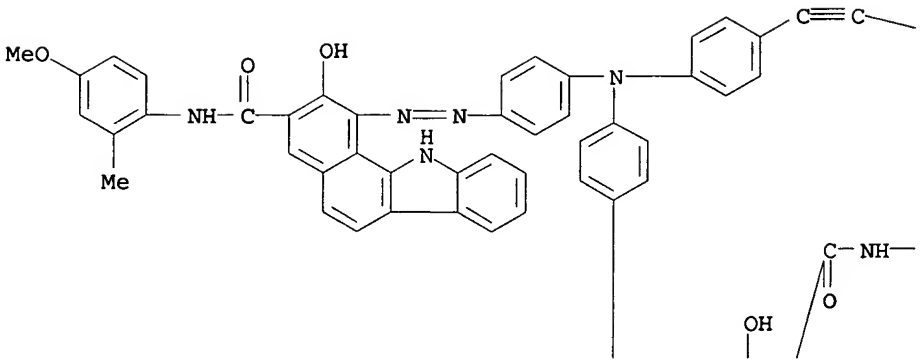
AB An electrophotog. photoreceptor contains a charge-generating compound (NA:NAr1)(AN:NAr2)NAr3C.tplbond.CAr4N(Ar5N:NA)(Ar6N:NA) [Ar1-6 = arylene, divalent condensed polycyclic aromatic group, divalent heterocyclylic aromatic group; A = I, II, III, IV, C(COCH3)HCONR3R4, V, VI; X = a group necessary to form an aromatic ring or heterocyclic ring; Y = CONR4R5, CONHN:CR4R5, COOR5; R1 = alkyl, phenyl; R2 = H, lower alkyl, carbamoyl, carboxyl, alkoxycarbonyl, anyloxycarbonyl, amino; R3 = alkyl, aryl, heterocyclyl; R4, R5 = H, alkyl, aryl, heterocyclyl; R4 = R5 ≠ H; when Y = COOR5, R5 ≠ H; B = a group necessary to form a heterocyclic ring].

IT **132469-68-2 132469-69-3 132469-70-6 132469-71-7 132469-72-8 132469-73-9 132469-77-3 132490-53-0 132495-19-3 132495-21-7**
RL: TEM (Technical or engineered material use); USES (Uses) (charge-generating agent, for electrophotog. photoreceptor)

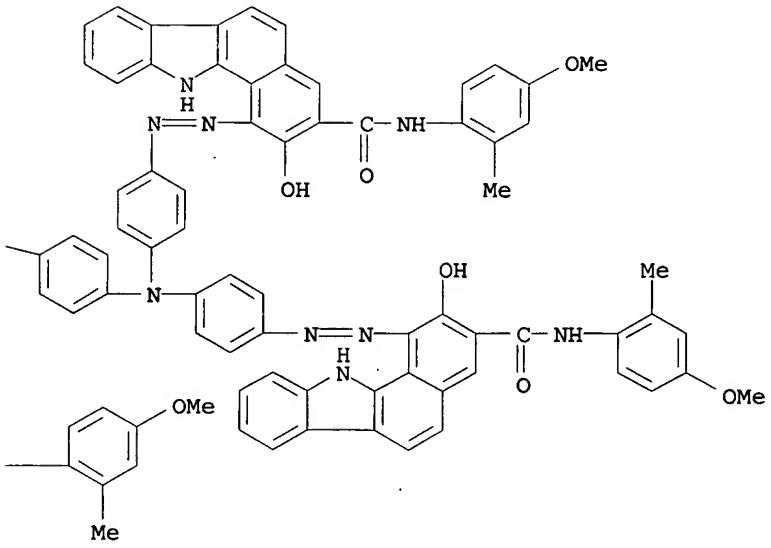
RN 132469-68-2 HCAPLUS

CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxy-2-methylphenyl)-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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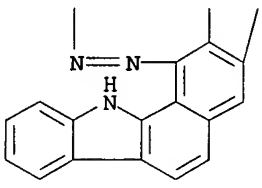
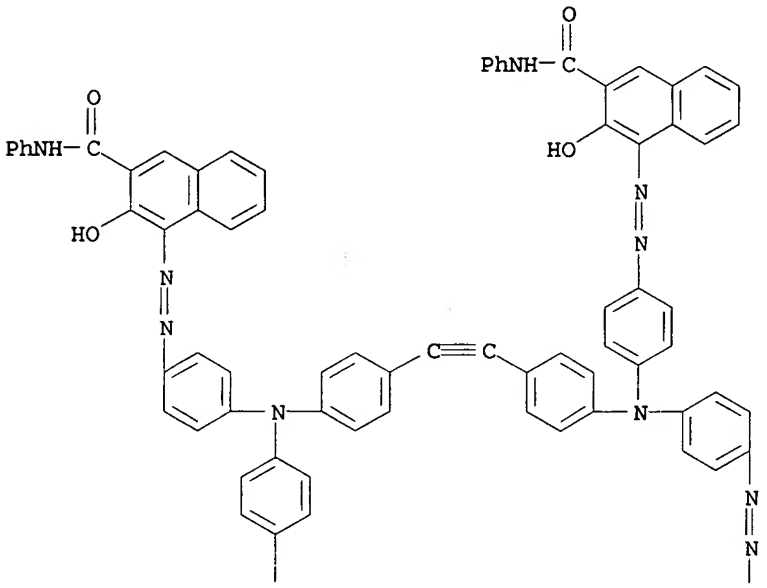
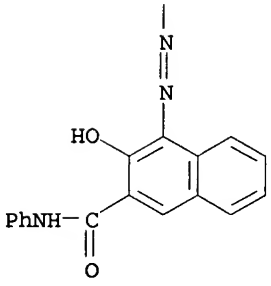


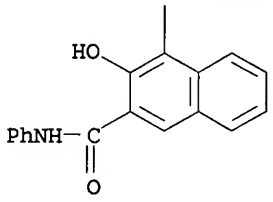
RN 132469-69-3 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



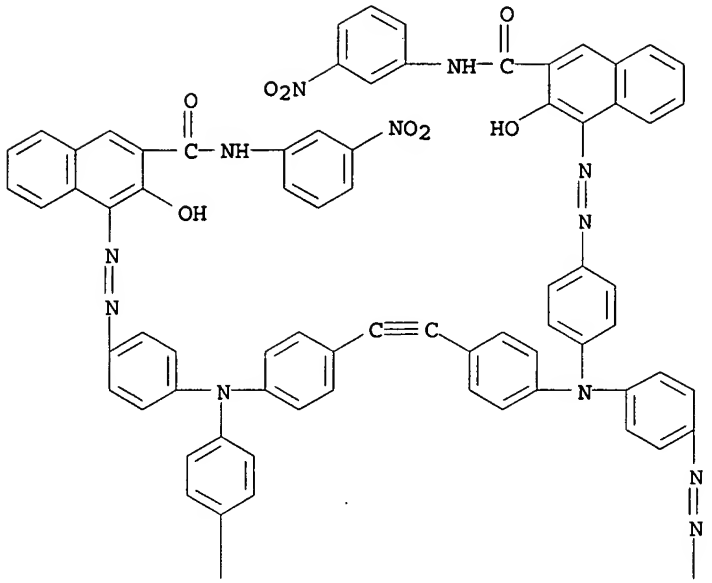
PAGE 2-A





RN 132469-70-6 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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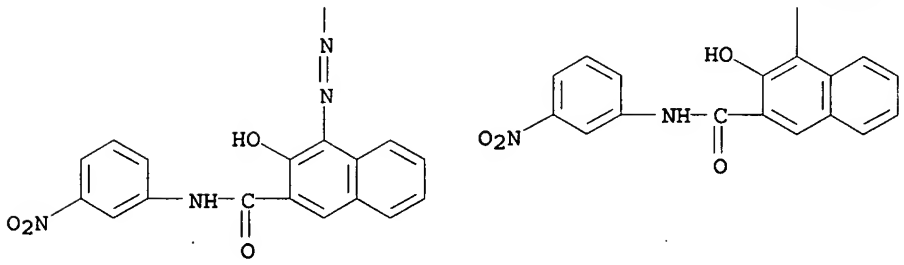
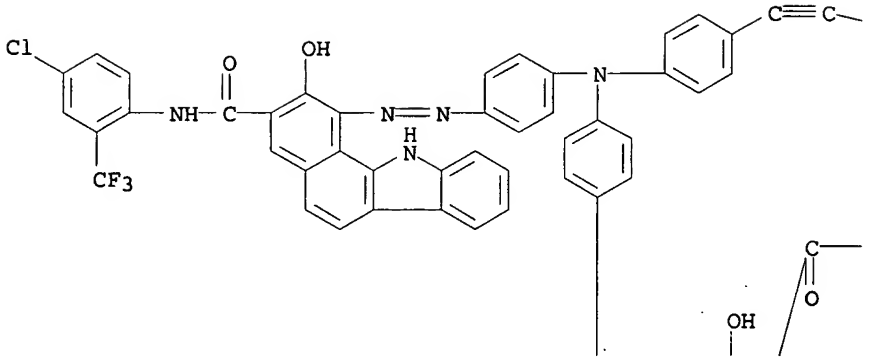
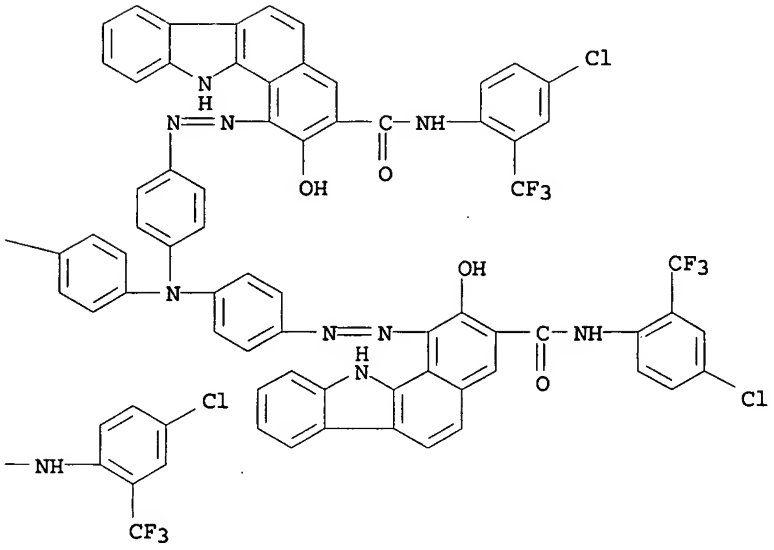


RN 132469-71-7 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-[4-chloro-2-(trifluoromethyl)phenyl]-2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



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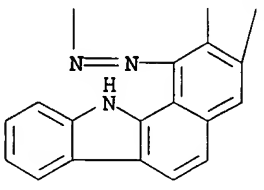
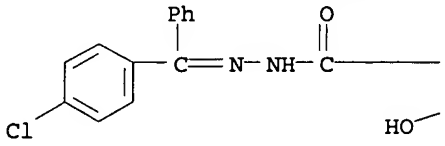
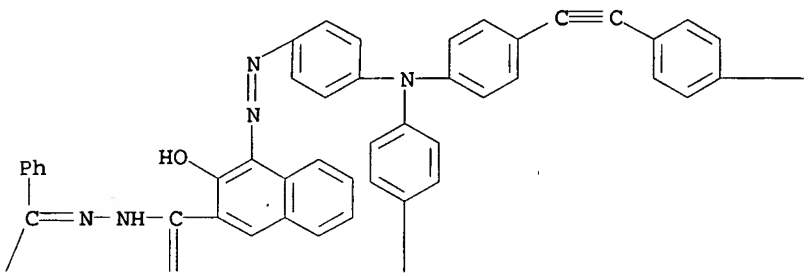


RN 132469-72-8 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4',4'',4'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-, tetrakis[[(4-chlorophenyl)phenylmethylene]hydrazide] (9CI) (CA INDEX NAME)

PAGE 1-A





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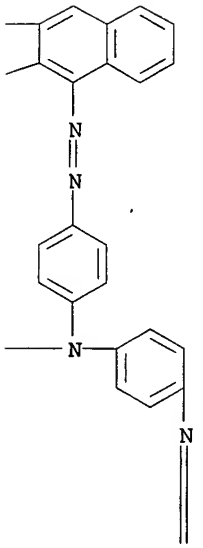

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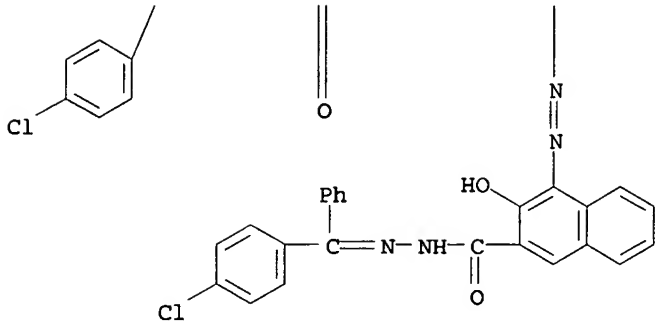

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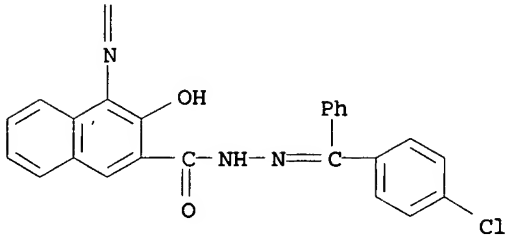
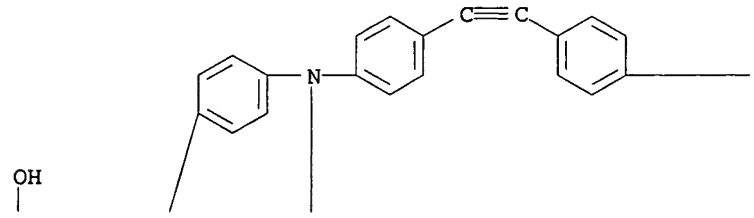


RN 132469-73-9 HCAPLUS
CN 7H-Benzimidazo[2,1-a]benz[de]isoquinolin-7-one, 3,3',3'',3'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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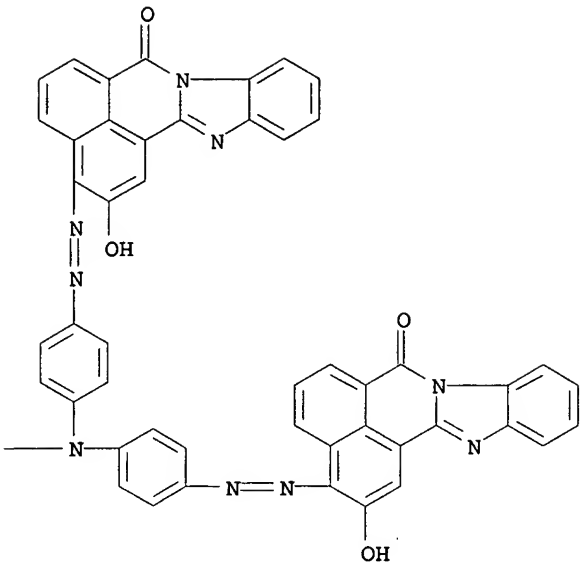

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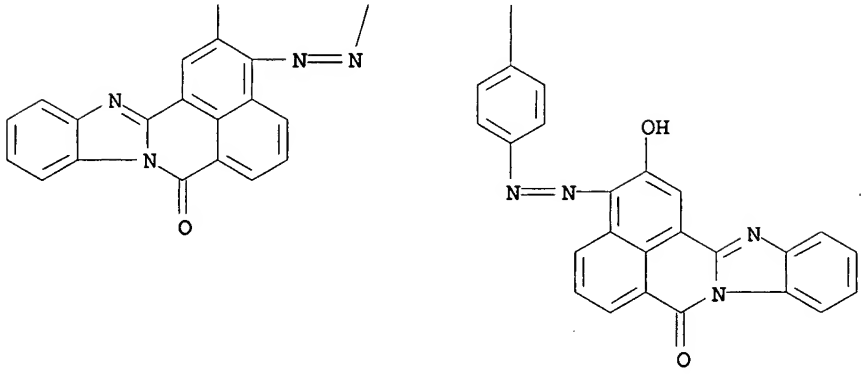

RN 132469-77-3 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis[(3-methoxy-4,1-phenylene)azo]]]tetrakis[2-hydroxy-N-(4-methoxy-2-methylphenyl)-(9CI) (CA INDEX NAME)

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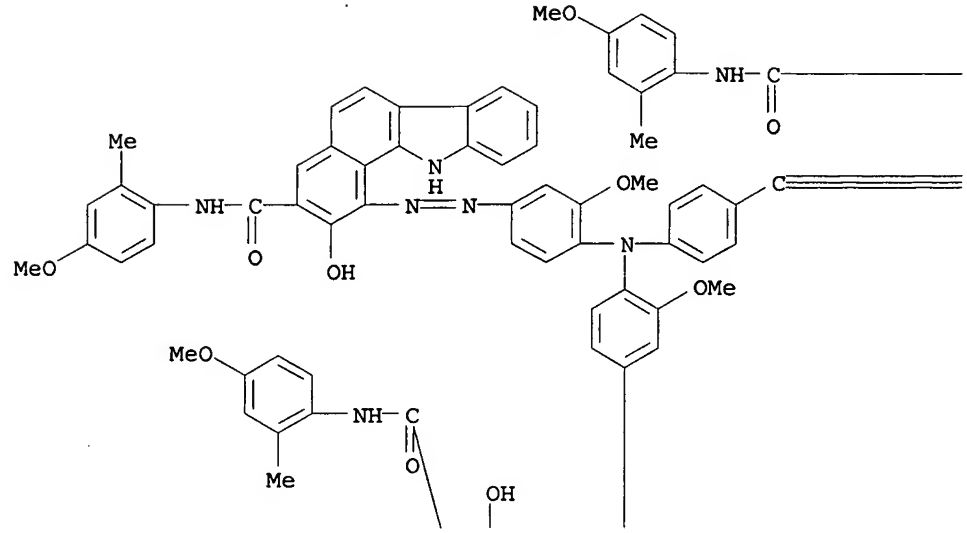

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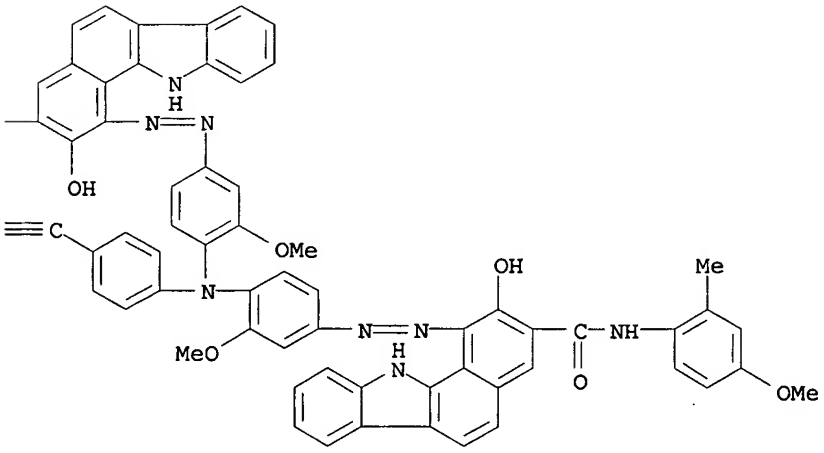

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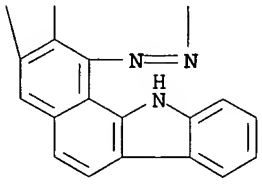
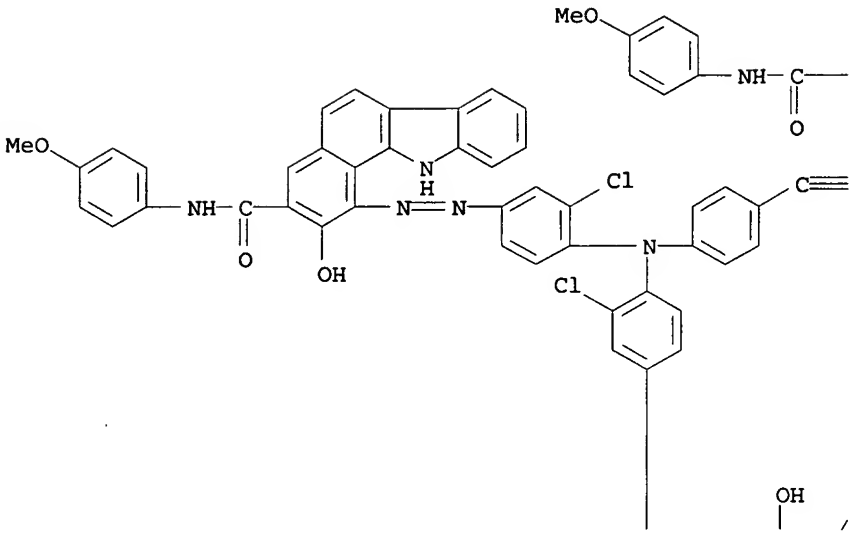


RN 132490-53-0 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis[(3-chloro-4,1-phenylene)azo]]]tetrakis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA

INDEX NAME)

PAGE 1-A



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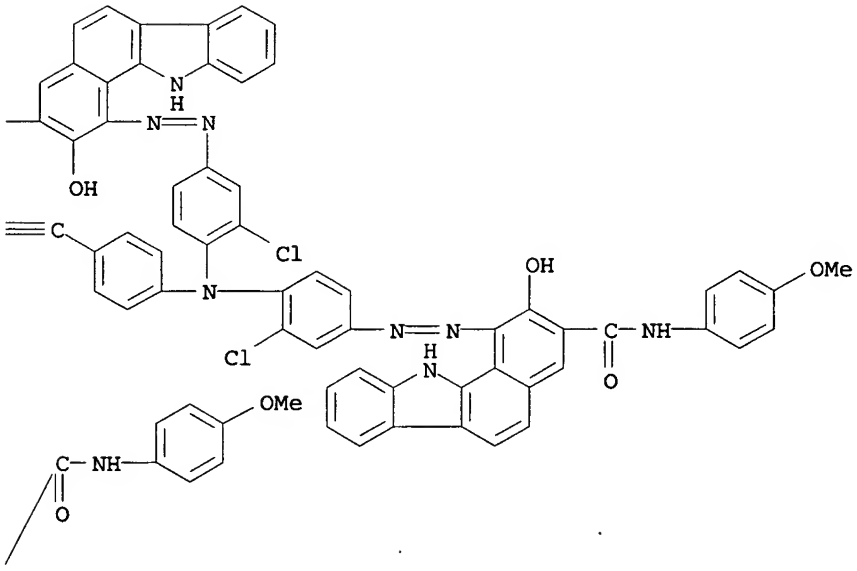

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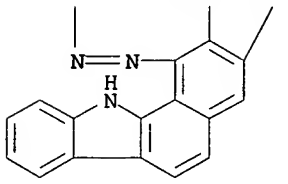

RN 132495-19-3 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[[4-[[4-[6-[bis[4-[[2-hydroxy-3-[[(4-methoxyphenyl)amino]carbonyl]-11H-benzo[a]carbazol-1-yl]azo]phenyl]amino]-2-benzoxazolyl]phenyl]ethynyl]phenyl]imino]bis(4,1-phenyleneazo)]bis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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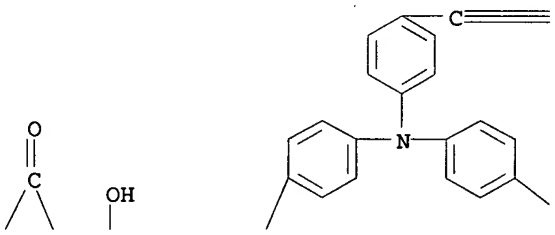

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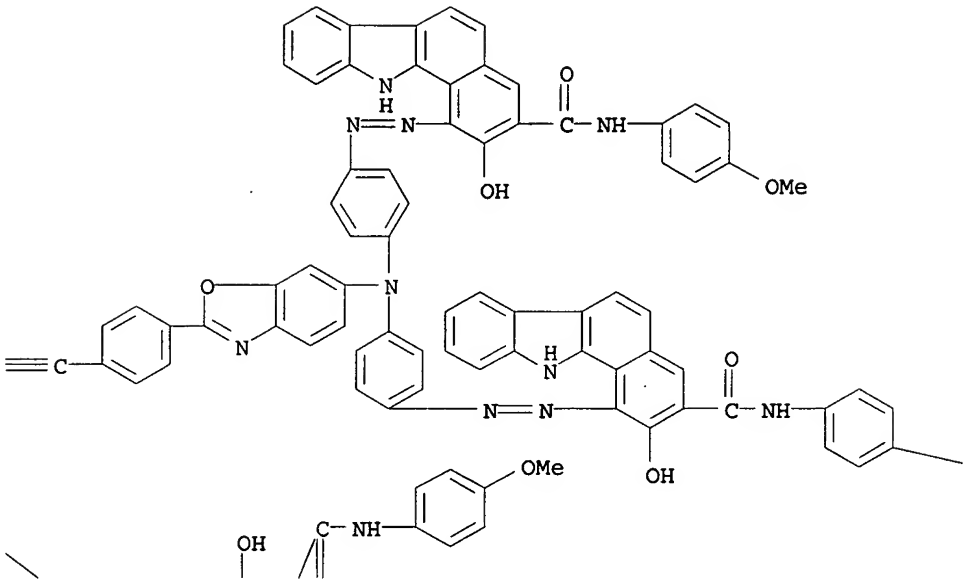

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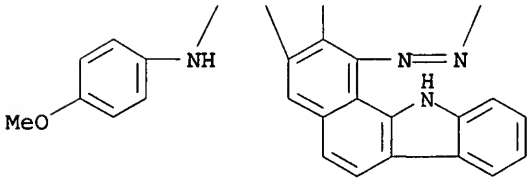

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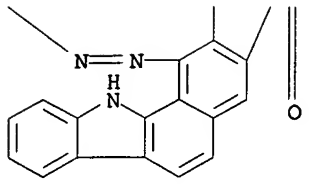

RN 132495-21-7 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis[(3-methoxy-4,1-phenylene)azo]]]tetrakis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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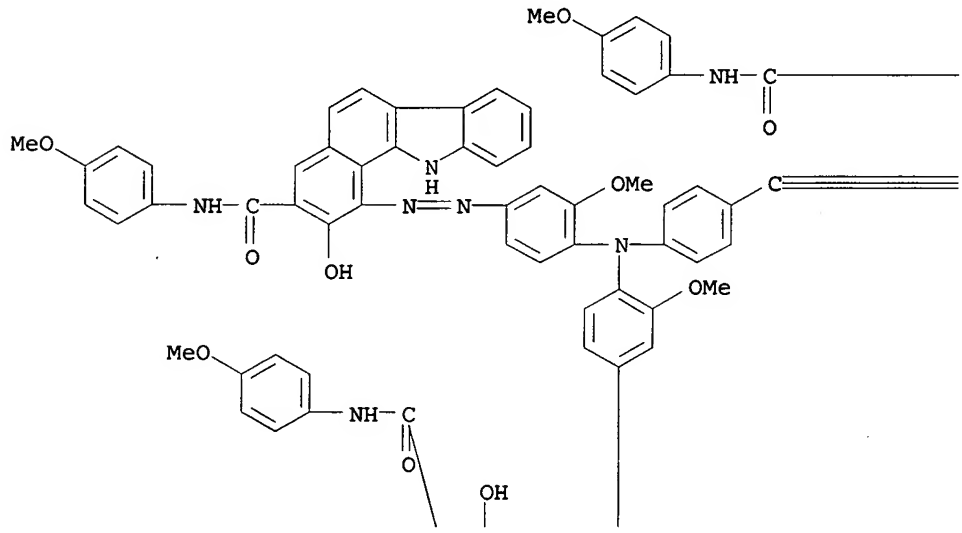

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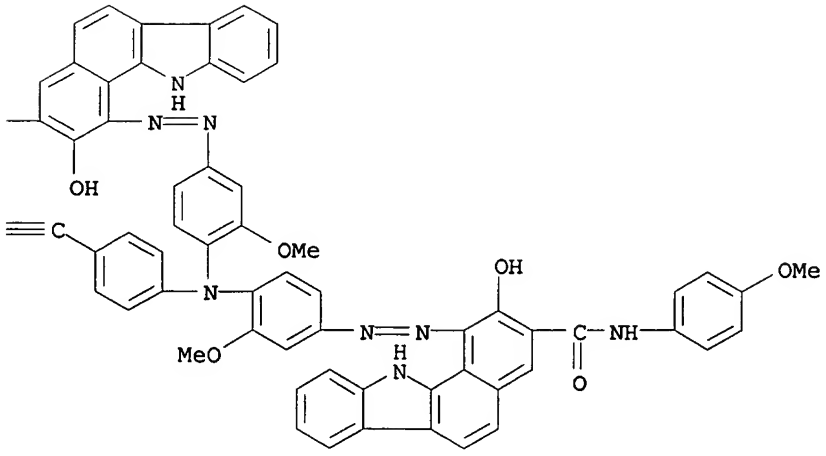

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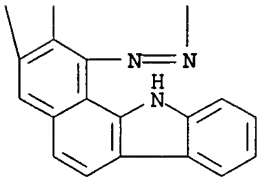
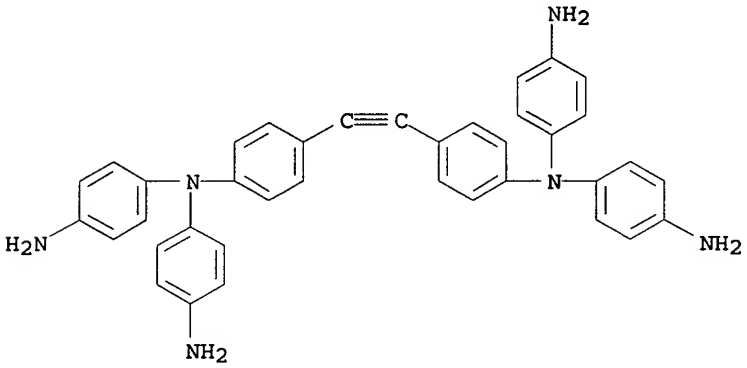


IT **132469-78-4P**
RL: PREP (Preparation)
(preparation of, as charge-generating agent for electrophotog. material)
RN 132469-78-4 HCAPLUS
CN 1,4-Benzenediamine, N,N''-(1,2-ethynediyldi-4,1-phenylene)bis[N-(4-aminophenyl)- (9CI) (CA INDEX NAME)



IT **132495-22-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, tetraazo charge-generating material from)
RN 132495-22-8 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethynediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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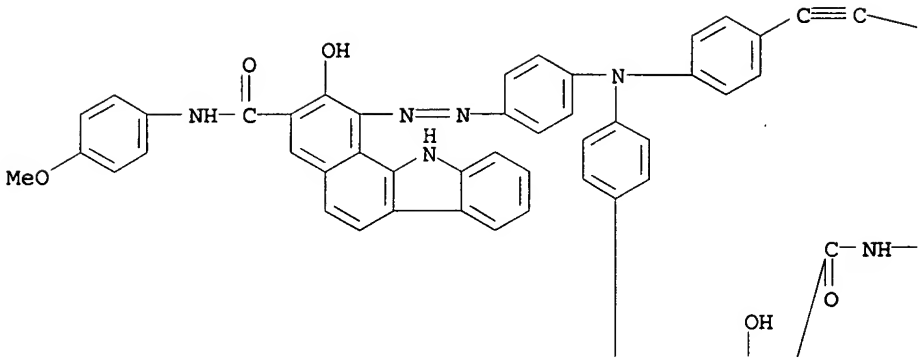

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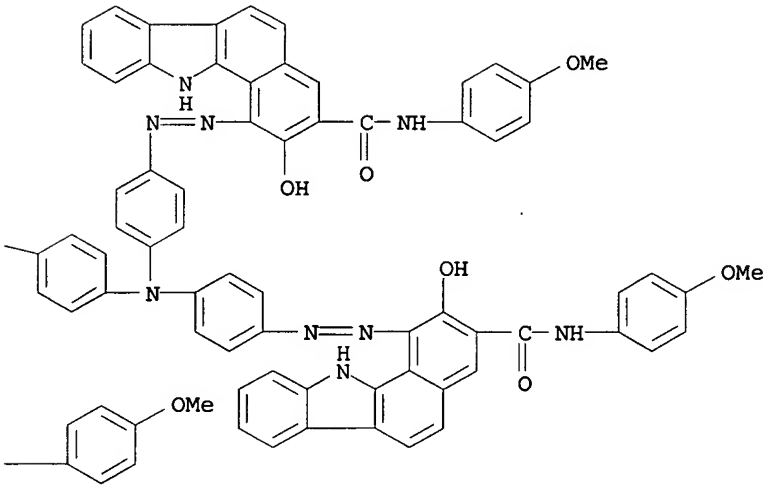

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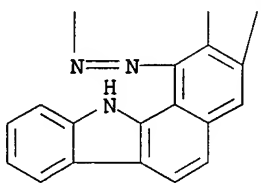


IC ICM G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and

Other **Reprographic** Processes)
IT Electrophotographic **photoconductors**
(tetraazo charge-generating materials for)
IT **132469-68-2 132469-69-3 132469-70-6**
132469-71-7 132469-72-8 132469-73-9
132469-74-0 132469-75-1 132469-76-2 **132469-77-3**
132490-53-0 132495-19-3 132495-20-6
132495-21-7
RL: TEM (Technical or engineered material use); USES (Uses)
(charge-generating agent, for electrophotog. photoreceptor)
IT **132469-78-4P**
RL: PREP (Preparation)
(preparation of, as charge-generating agent for electrophotog. material)
IT **132495-22-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, tetraazo charge-generating material from)

L74 ANSWER 42 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:45618 HCAPLUS
DOCUMENT NUMBER: 112:45618
TITLE: **Photoconductive** composition and electrophotographic photoreceptor containing it
INVENTOR(S): Kitatani, Katsushi; Hoshi, Satoshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01072166	A2	19890317	JP 1987-228029	1987 0911
JP 07104604	B4	19951113		
US 4882249	A	19891121	US 1988-243358	1988 0912

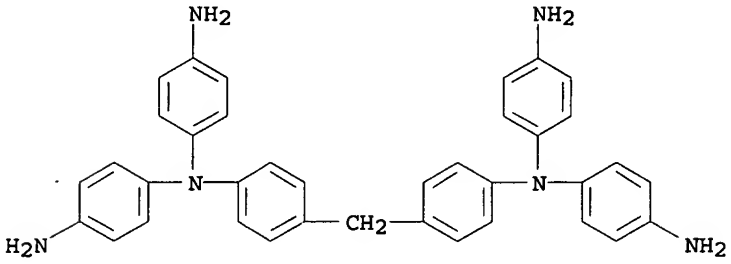
PRIORITY APPLN. INFO.: JP 1987-228029 A 1987 0911

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title composition contains ≥1 tetrakisazo derivative AN:NAr1N(AN:NAr2)Ar3CR11R12Ar4N(Ar5N:NA)Ar6N:NA (I) [R11, R12 = H, (substituted) alkyl, aralkyl, etc.; Ar1 - Ar6 = (substituted) arylene; A = Q, etc.; R1 = alkyl, Ph]. I is used as a charge carrier-generating material in the photoreceptor comprising a layer containing a charge carrier-transporting/carrier-generating material. II was used as a charge carrier-generating material.
IT **124558-08-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of charge carrier-generating

material)
RN 124558-08-3 HCAPLUS
CN 1,4-Benzenediamine, N,N''-(methylenedi-4,1-phenylene)bis[N-(4-aminophenyl)- (9CI) (CA INDEX NAME)



IT **124558-09-4P 124558-10-7P 124558-11-8P 124569-83-1P 124569-84-2P 124569-85-3P 124569-86-4P 124569-87-5P 124569-88-6P 124569-89-7P**
RL: PREP (Preparation)
(preparation of, as charge carrier-generating material)
RN 124558-09-4 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[(methylenedi-4,1-phenylene)bis[nitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxy-2-methylphenyl)- (9CI) (CA INDEX NAME)

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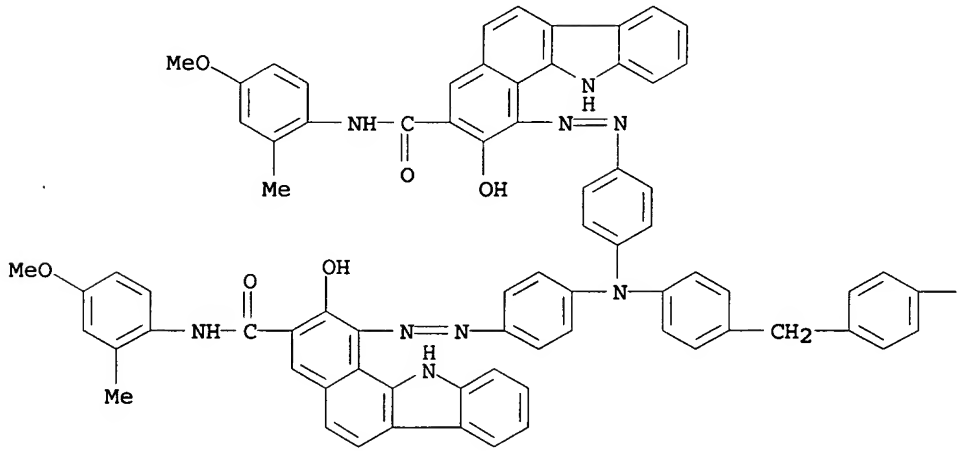

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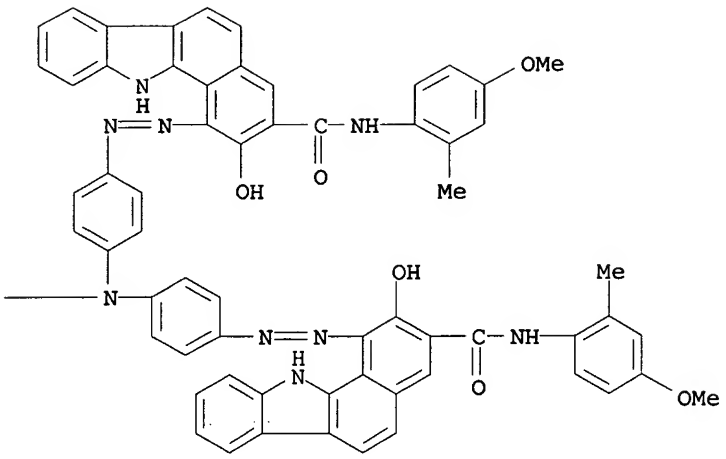

RN 124558-10-7 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[(methylenedi-4,1-phenylene)bis[nitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

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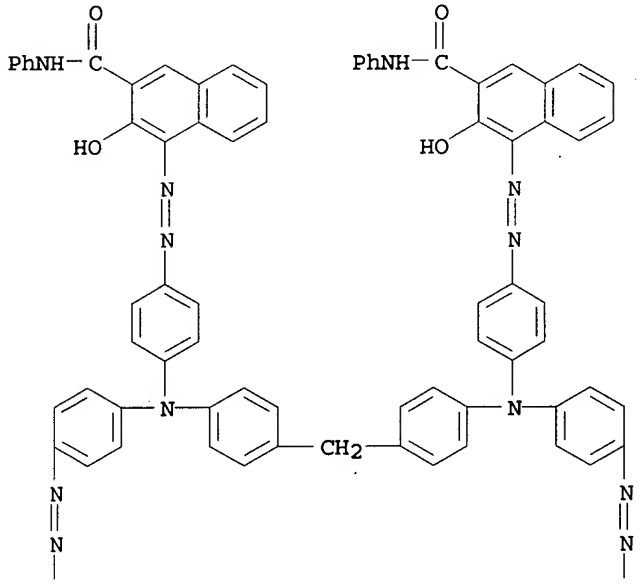

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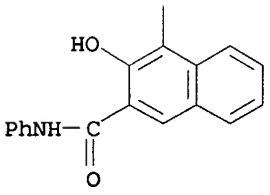

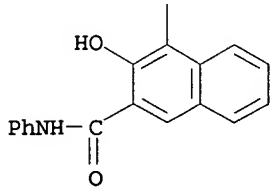

RN 124558-11-8 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4',4'',4'''-[(methylenedi-4,1-phenylene)bis[nitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-, tetrakis[[(4-chlorophenyl)phenylmethylene]hydrazide] (9CI) (CA INDEX NAME)

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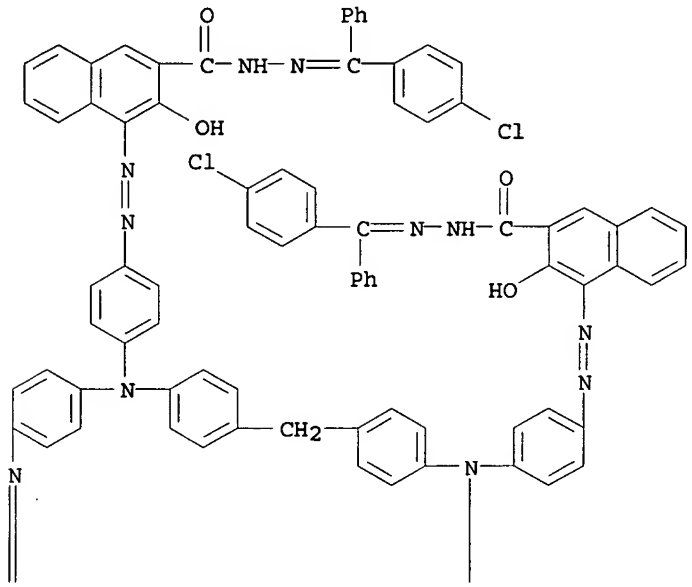

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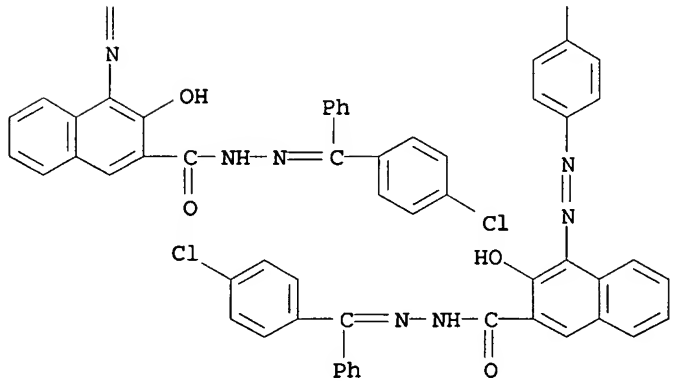

RN 124569-83-1 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[methylenebis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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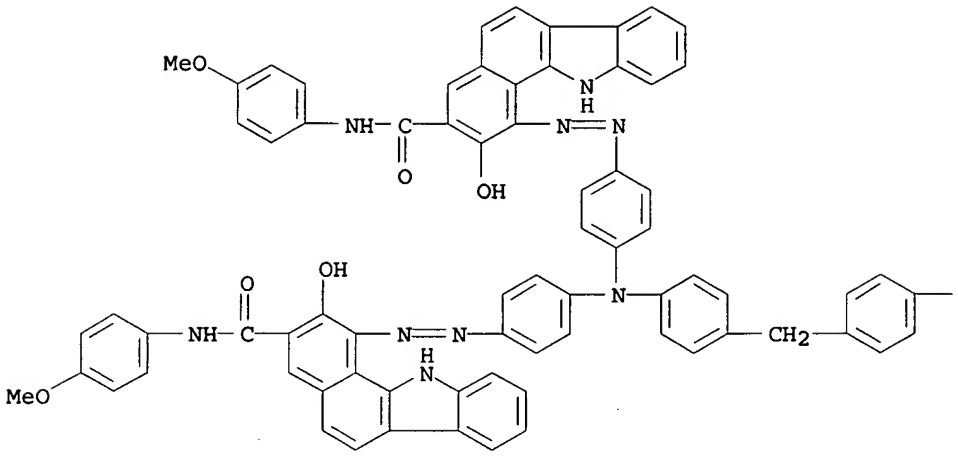

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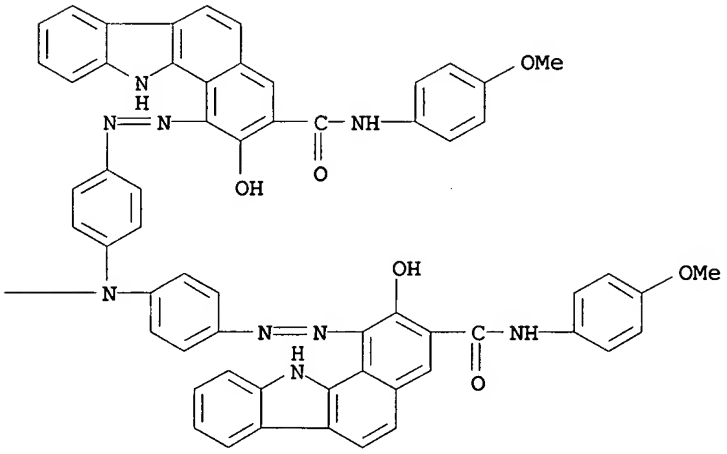

RN 124569-84-2 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[methylenebis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

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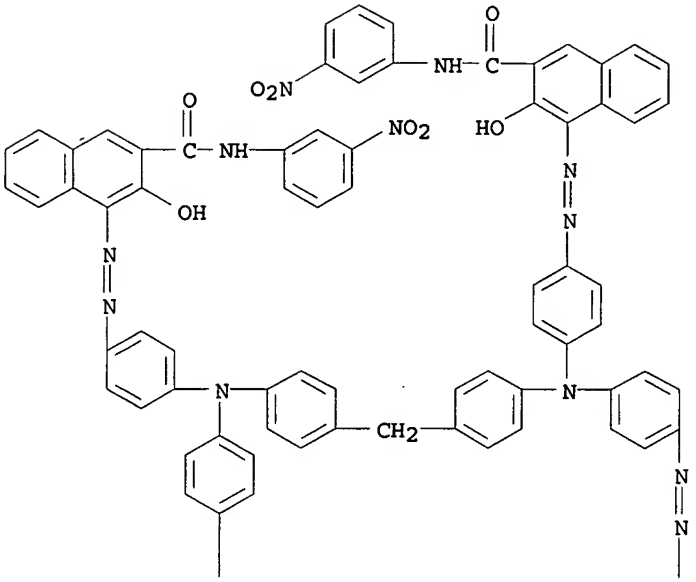

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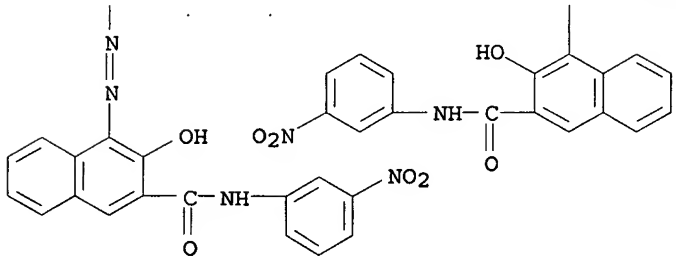

RN 124569-85-3 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[methylenebis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-[4-chloro-2-(trifluoromethyl)phenyl]-2-hydroxy- (9CI) (CA INDEX NAME)

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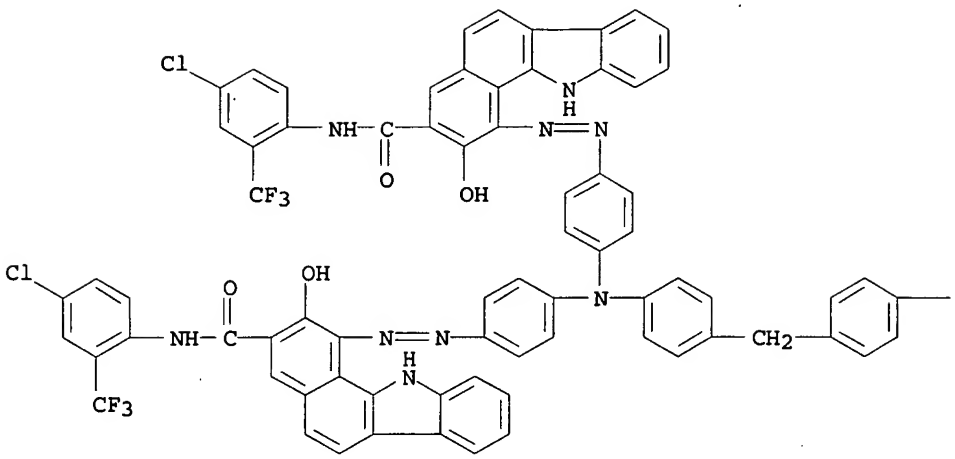

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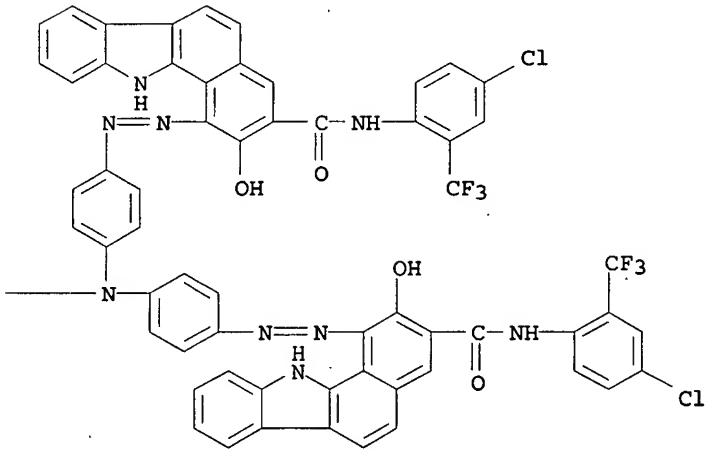

RN 124569-86-4 HCAPLUS
CN 7H-Benzimidazo[2,1-a]benz[de]isoquinolin-7-one, 3,3',3'',3'''-[methylenebis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy- (9CI) (CA INDEX NAME)

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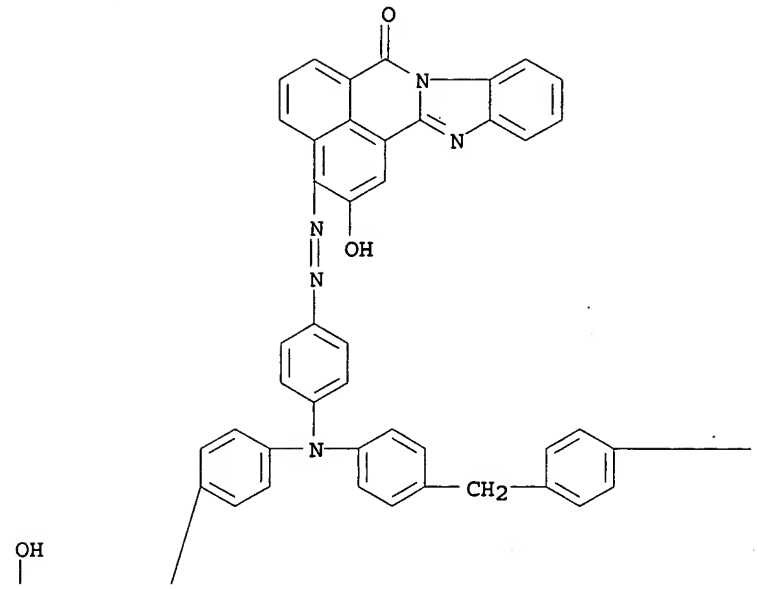

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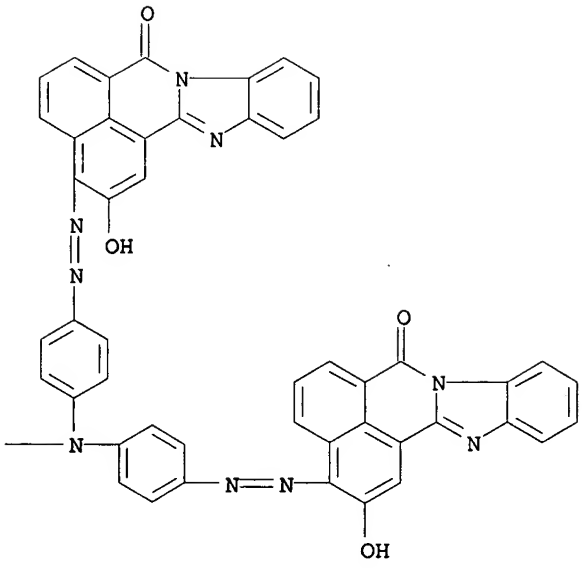

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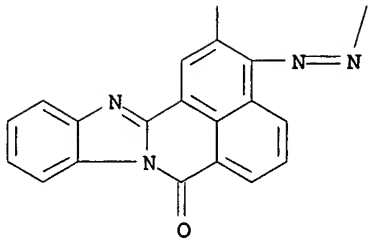

RN 124569-87-5 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[octadecylidenebis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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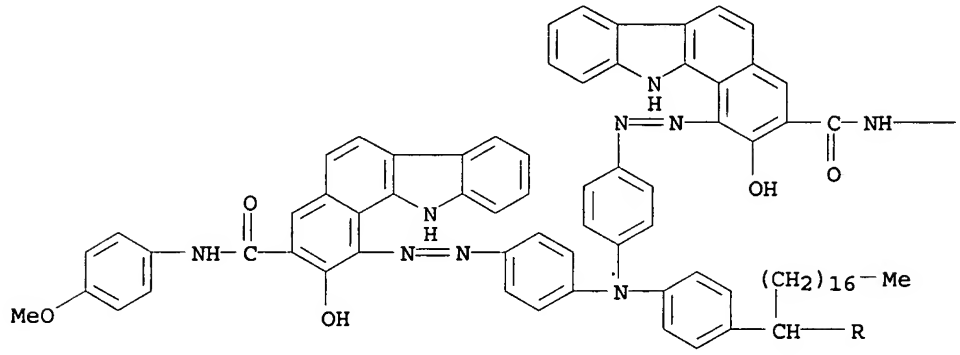

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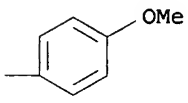

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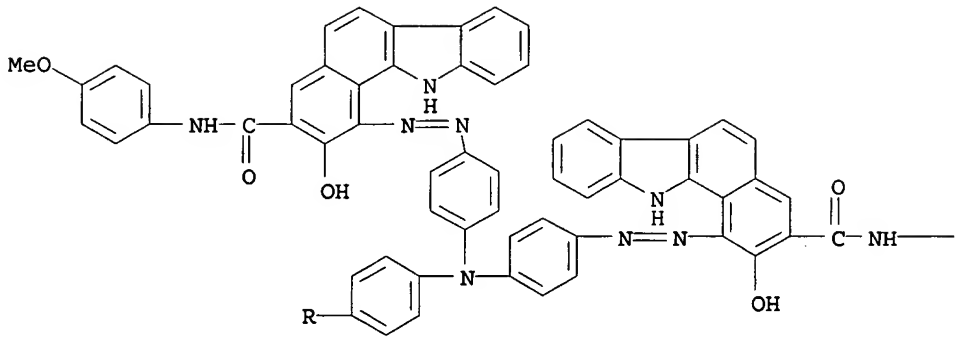

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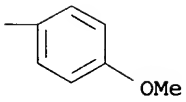

RN 124569-88-6 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[[(4-chlorophenyl)methylene]bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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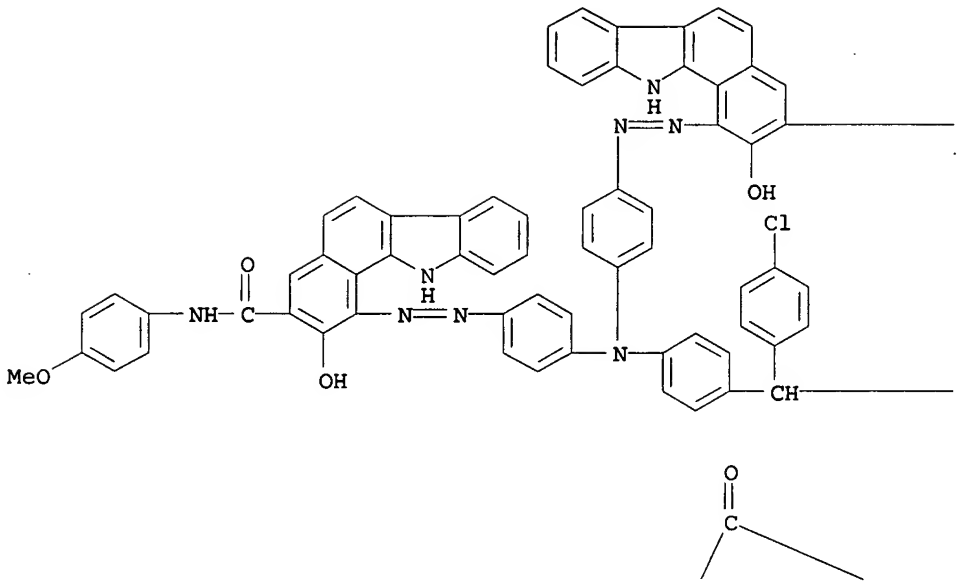

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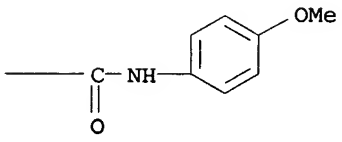
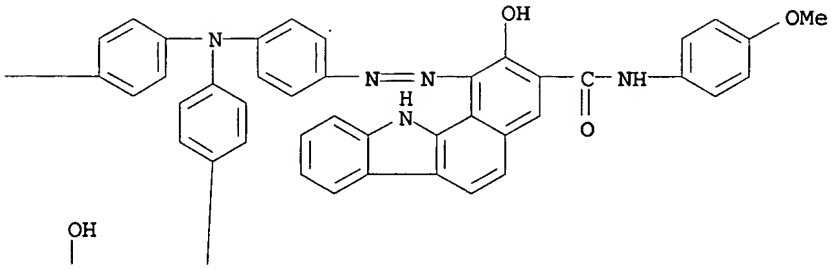
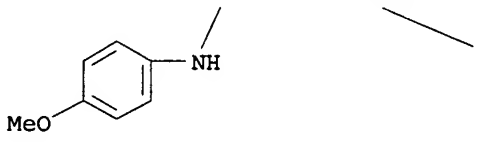




PAGE 2-A



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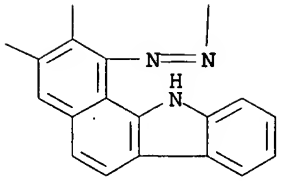

RN 124569-89-7 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[[(4-chlorophenyl)methylene]bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxy-2-methylphenyl)-(9CI) (CA INDEX NAME)

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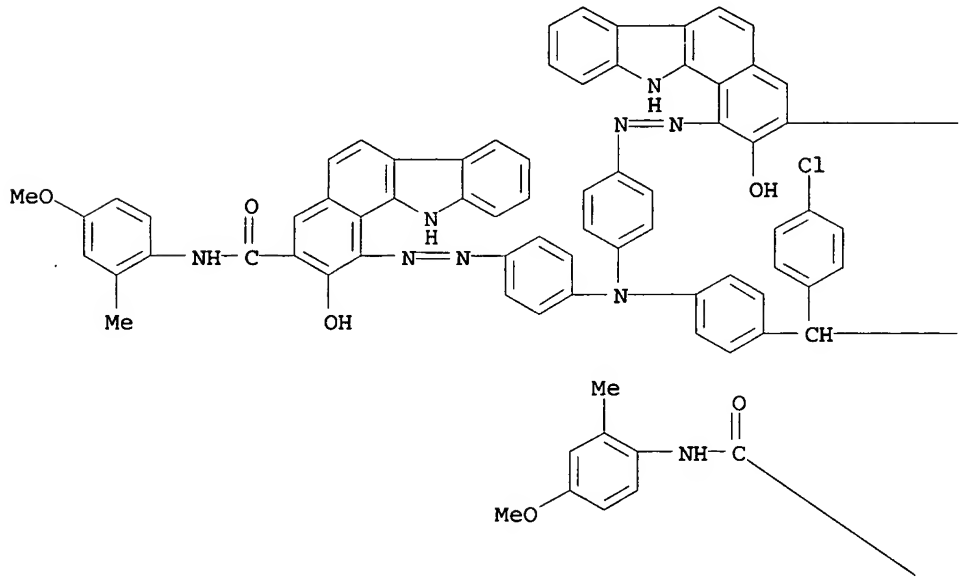

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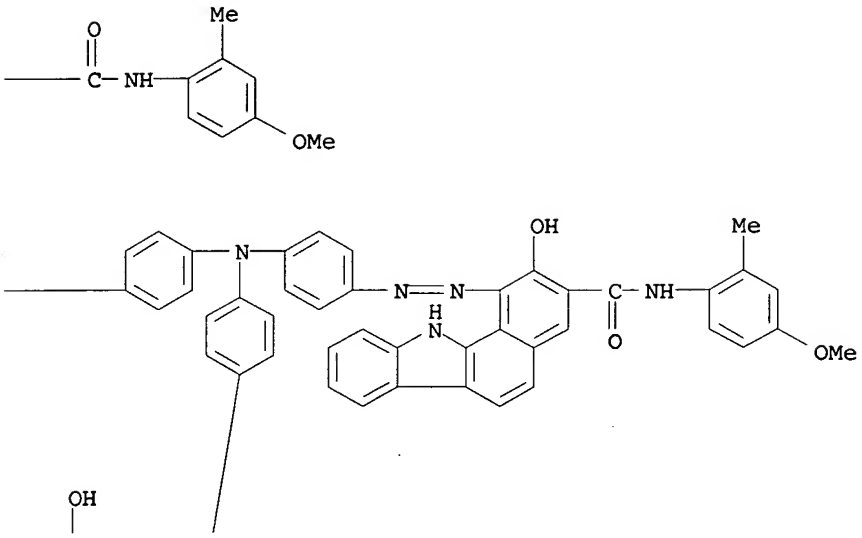

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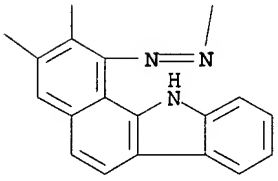
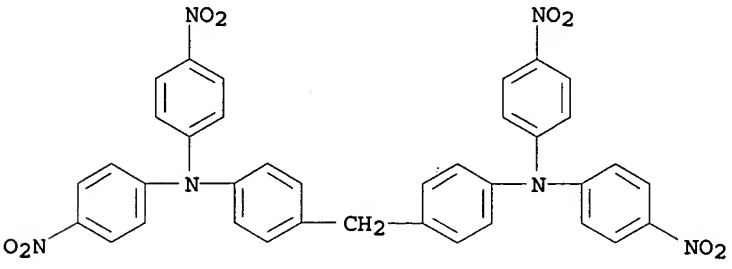


IT **124558-07-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, electrophotog. charge carrier-generating material from)
RN 124558-07-2 HCAPLUS
CN Benzenamine, 4,4'-methylenebis[N,N-bis(4-nitrophenyl)- (9CI) (CA INDEX NAME)



IC ICM G03G005-06
ICS C09B035-50
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
Section cross-reference(s): 23
IT Electrophotographic **photoconductors**
(tetrakisazo charge carrier-generating materials for)
IT **124558-08-3P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, in preparation of charge carrier-generating material)
IT **124558-09-4P 124558-10-7P 124558-11-8P**
124569-83-1P 124569-84-2P 124569-85-3P
124569-86-4P 124569-87-5P 124569-88-6P
124569-89-7P
RL: PREP (Preparation)
(preparation of, as charge carrier-generating material)
IT **124558-07-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, electrophotog. charge carrier-generating material from)

L74 ANSWER 43 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:565424 HCAPLUS
DOCUMENT NUMBER: 107:165424
TITLE: Electrophotographic charge-generating tetrakisazo **photoconductors**
INVENTOR(S): Matsumoto, Masakazu; Umehara, Masashige; Takiguchi, Takao; Yamashita, Masataka; Ishikawa, Shozo
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62019875	A2	19870128	JP 1985-159402	19850718
JP 04048388	B4	19920806		
US 4666810	A	19870519	US 1986-852243	19860415
PRIORITY APPLN. INFO.:			JP 1985-80248 A	19850417
			JP 1985-157699 A	19850717
			JP 1985-157700 A	19850717
			JP 1985-159401 A	19850718

JP 1985-159402 A 1985 0718

JP 1985-159403 A 1985 0718

AB The tetrakisazo **photoconductor** has the formula (AN:NZ3)(AN:NZ4)NZ1XZ2N(Z5N:NA)(Z6N:NA) (I; A = coupler residue with a phenolic OH group; Z1-Z6 = arylene, condensed polycyclylene, heterocyclylene; X = NR, O, S, SO2, CO; R = H, alkyl, aryl, etc.). An electrophotog. charge-generating layer may contain a tetrakisazo compound of the formula I (A = coupler residue from 3-hydroxy-2-naphthoic acid anilide; Z1-Z6 = 1,4-phenylene; X = NH) and a poly(vinyl butyral) binder. It provides electrophotog. photoreceptors with improved sensitivity and voltage stability for repeated use.

IT **110742-97-7 110743-10-7 110743-18-5 110769-55-6**
RL: USES (Uses)
(electrophotog. charge-generating **photoconductor**, with improved sensitivity and voltage stability for repeated use)

RN 110742-97-7 HCAPLUS

CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[oxybis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-(2-nitrophenyl)- (9CI) (CA INDEX NAME)

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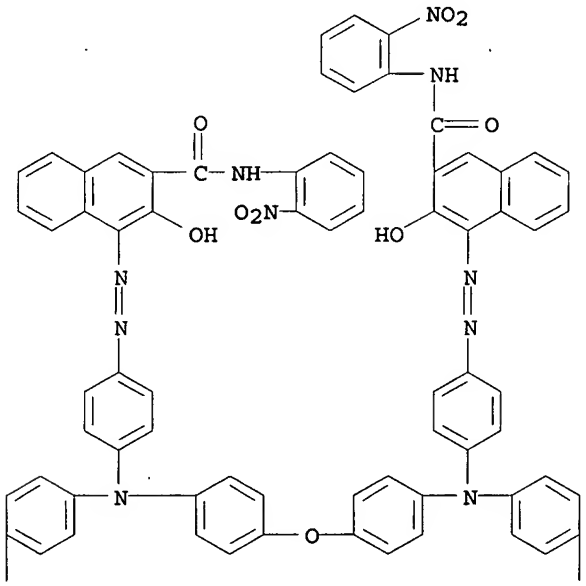

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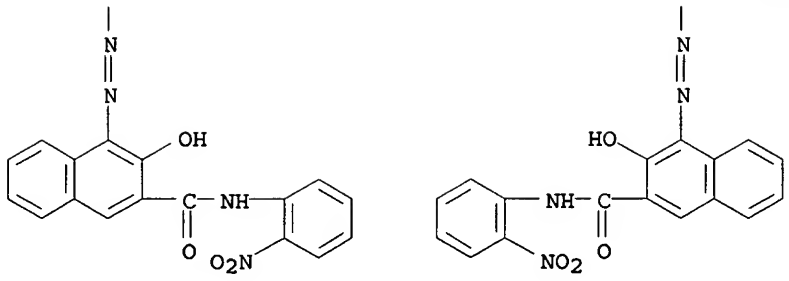
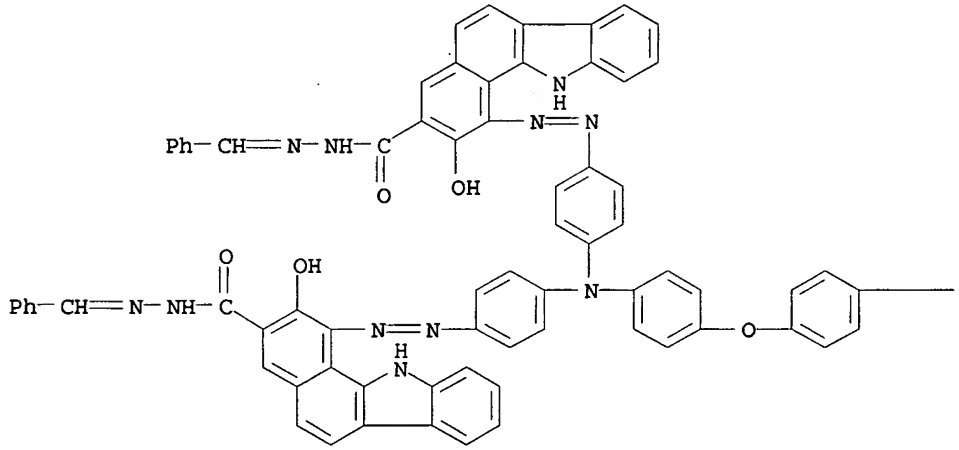


RN 110743-10-7 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxylic acid, 1,1',1'',1'''-[oxybis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-, tetrakis[(phenylenemethylene)hydrazide] (9CI) (CA INDEX NAME)

PAGE 1-A



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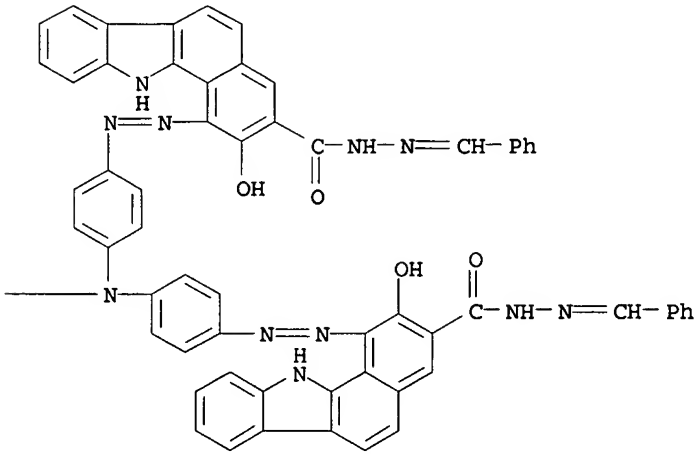

RN 110743-18-5 HCAPLUS
CN 2-Anthracenecarboxamide, 4,4',4'',4'''-[thiobis[(2-methoxy-4,1-phenylene)nitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

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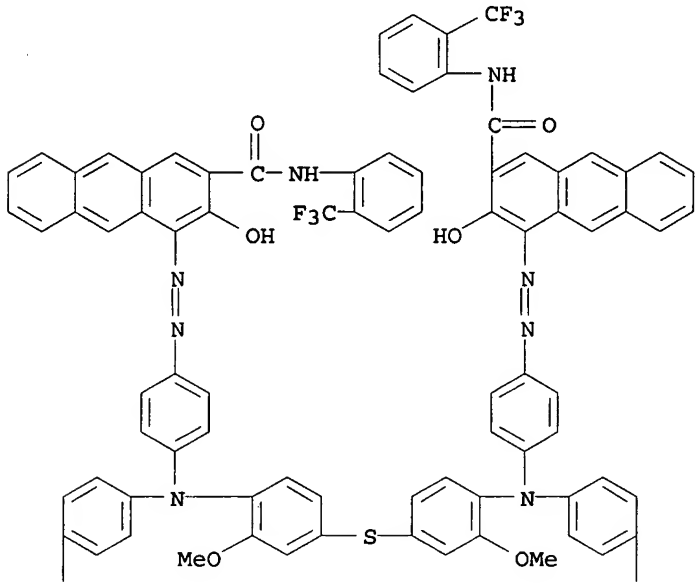

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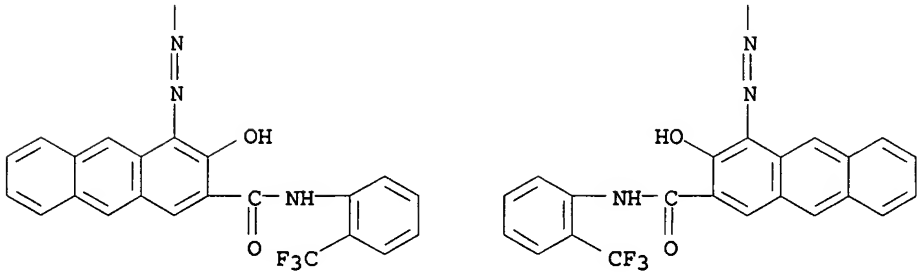

RN 110769-55-6 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[carbonylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

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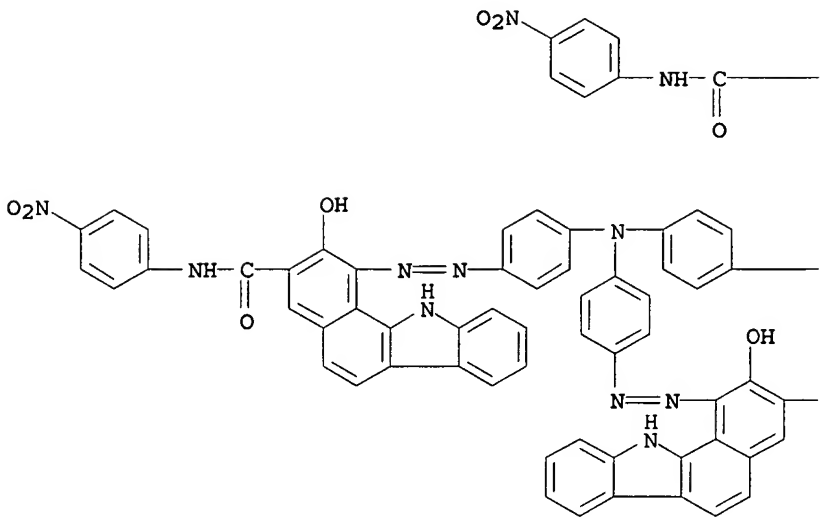

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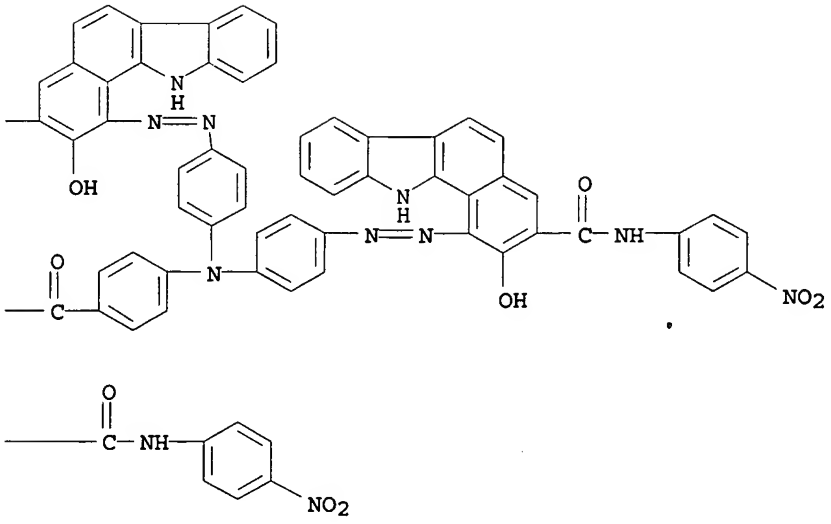


IC ICM G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
ST electrophotog tetrakisazo charge generating **photoconductor**
IT Electrophotographic **photoconductors**
(composite, containing charge-generating tetrakisazo pigments, for improved sensitivity and voltage stability for repeated use)
IT 92-77-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling reaction of, with tetrazonium salts, electrophotog. charge-generating tetrakisazo **photoconductors** from)
IT 110697-06-8 110697-27-3 110697-28-4 110697-29-5

110697-30-8 110697-31-9 110697-32-0 110697-33-1
110697-34-2 110697-35-3 110697-36-4 110697-37-5
110715-09-8 110715-10-1 110715-11-2 110715-12-3
110715-13-4 110715-14-5 110742-83-1 110742-84-2
110742-85-3 110742-86-4 110742-87-5 110742-88-6
110742-89-7 110742-90-0 110742-91-1 110742-92-2
110742-93-3 110742-94-4 110742-95-5 110742-96-6
110742-97-7 110742-98-8 110742-99-9 110743-00-5
110743-01-6 110743-02-7 110743-03-8 110743-04-9
110743-05-0 110743-06-1 110743-07-2 110743-08-3
110743-09-4 **110743-10-7** 110743-11-8 110743-12-9
110743-13-0 110743-14-1 110743-15-2 110743-16-3
110743-17-4 **110743-18-5** 110743-19-6 110769-54-5
110769-55-6 110769-56-7 110769-57-8 110769-58-9
RL: USES (Uses)
(electrophotog. charge-generating **photoconductor**, with improved sensitivity and voltage stability for repeated use)

IT 110697-26-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, as electrophotog. charge-generating **photoconductor**)

IT 110697-25-1
RL: USES (Uses)
(reaction of tetrazotized, electrophotog. charge-generating tetrakisazo **photoconductors** from)

L74 ANSWER 44 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:565420 HCAPLUS
DOCUMENT NUMBER: 107:165420
TITLE: Electrophotographic charge-generating tetrakisazo pigments
INVENTOR(S): Matsumoto, Masakazu; Umehara, Masashige; Takiguchi, Takao; Yamashita, Masataka; Ishikawa, Shozo
PATENT ASSIGNEE(S): Canon K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 62018565	A2	19870127	JP 1985-157699	19850717
JP 04035750	B4	19920612		
US 4666810	A	19870519	US 1986-852243	19860415

PRIORITY APPLN. INFO.: JP 1985-80248 A 19850417
JP 1985-157699 A 19850717
JP 1985-157700 A 19850717
JP 1985-159401 A

			1985 0718
	JP 1985-159402	A	1985 0718
	JP 1985-159403	A	1985 0718

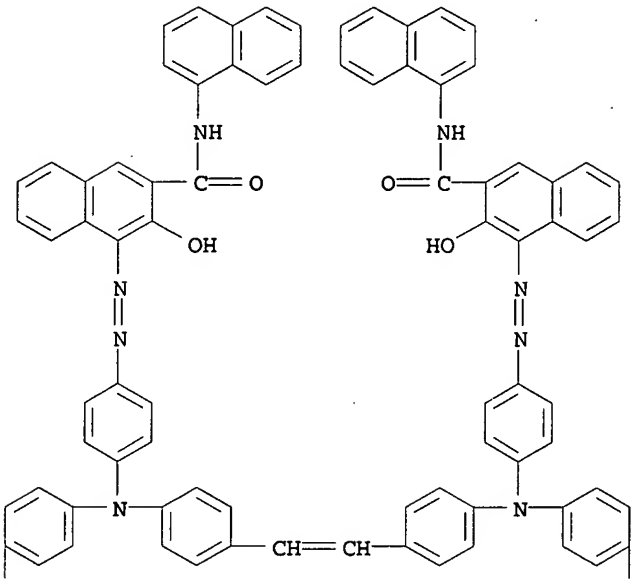
AB The charge-generating tetrakisazo pigments have the formula (AN:NZ3)(AN:NZ4)NZ1CB1:CB2Z2N(Z5N:NA)(Z6N:NA) (I; A = coupler residue with a phenolic OH group; Z1-Z6 = arylene, condensed polycyclene, heterocyclene; B1, B2 = H, halo, CF3, CN, etc.). An electrophotog. charge-generating layer may contain a tetrakisazo pigment of the formula I (A = coupler residue from 3-hydroxy-2-naphthoic acid anilide; Z1-Z6 = 1,4-phenylene; B1, B2 = H) and a poly(vinyl butyral) binder. It provides electrophotog. photoreceptors with improved sensitivity and voltage stability for repeated use.

IT **98094-34-9 98113-92-9 110573-29-0 110573-30-3 110573-31-4 110573-32-5 110573-33-6 110573-34-7 110573-35-8 110573-37-0 110573-38-1 110573-39-2 110573-40-5 110573-41-6 110573-42-7 110573-43-8 110573-45-0 110573-46-1 110573-53-0 110573-54-1 110573-55-2 110573-56-3 110573-57-4 110573-58-5 110573-60-9 110573-61-0 110573-62-1 110573-63-2 110573-65-4 110573-67-6 110573-69-8 110573-70-1 110573-71-2 110573-74-5 110591-95-2 110591-96-3 110591-97-4 110591-99-6 110592-00-2 110592-01-3**
RL: USES (Uses)
(electrophotog. charge-generating pigments)

RN 98094-34-9 HCAPLUS

CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-1-naphthalenyl- (9CI) (CA INDEX NAME)

PAGE 1-A



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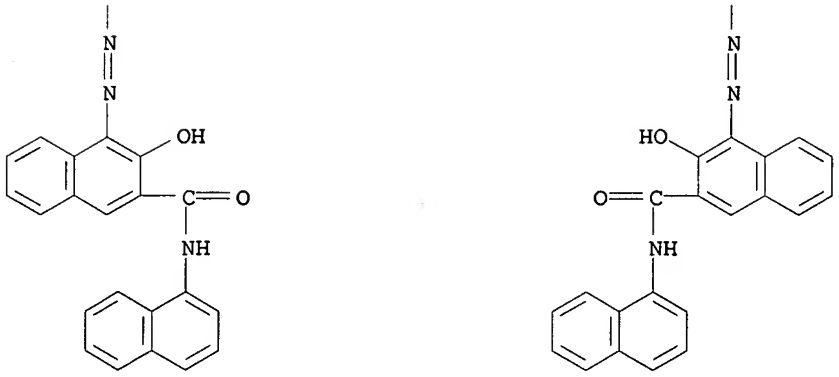
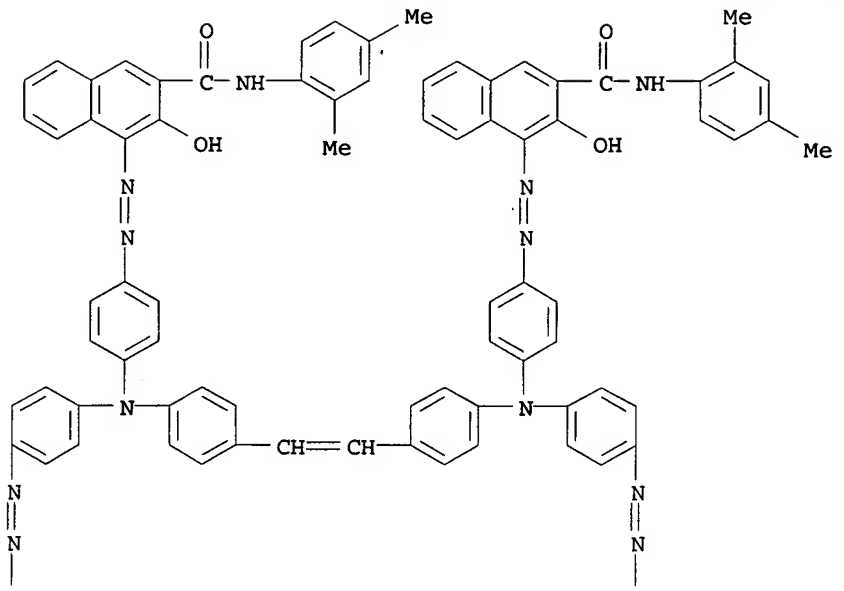


RN 98113-92-9 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-(2,4-dimethylphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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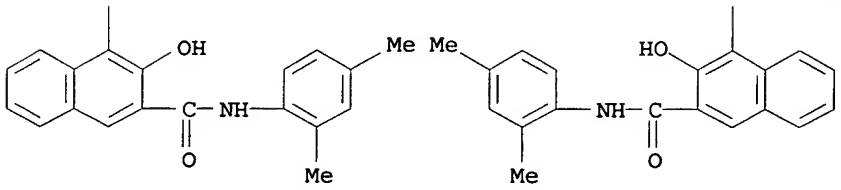
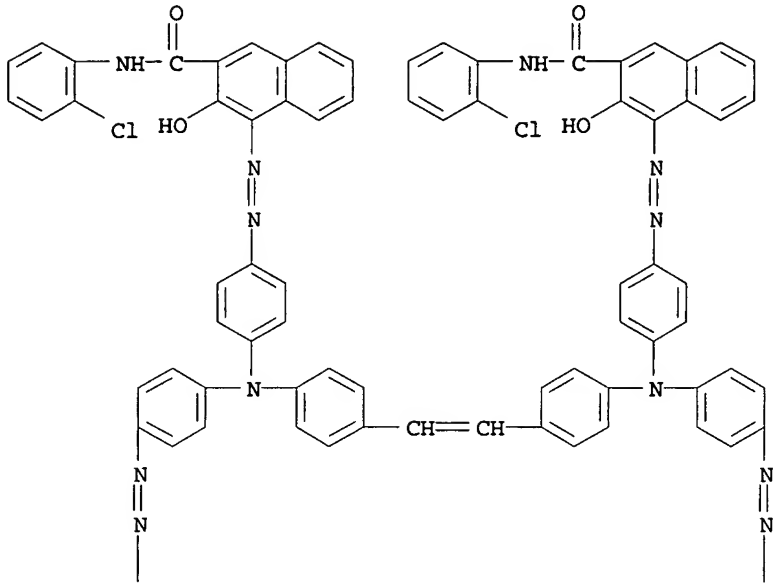


RN 110573-29-0 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-(2-chlorophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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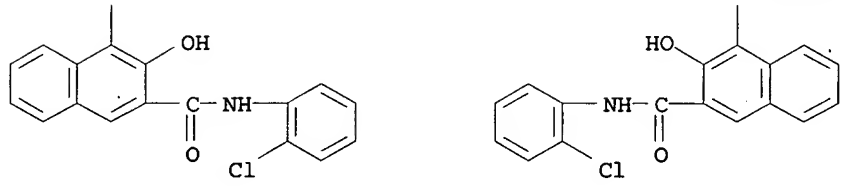
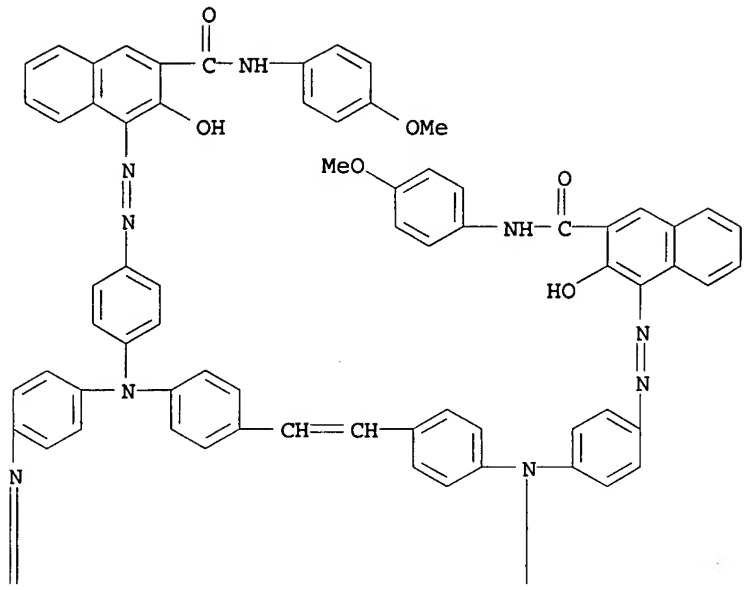


RN 110573-30-3 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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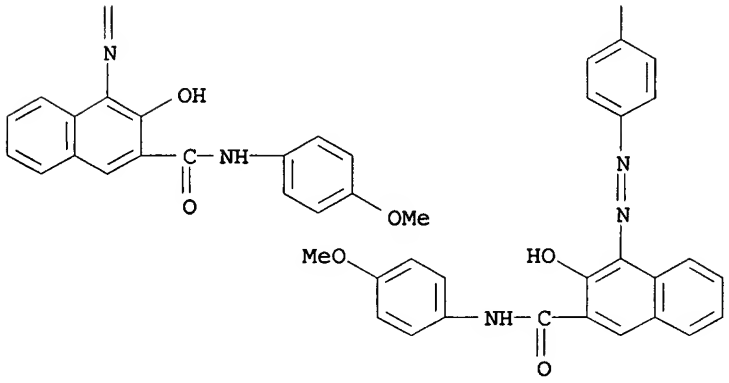
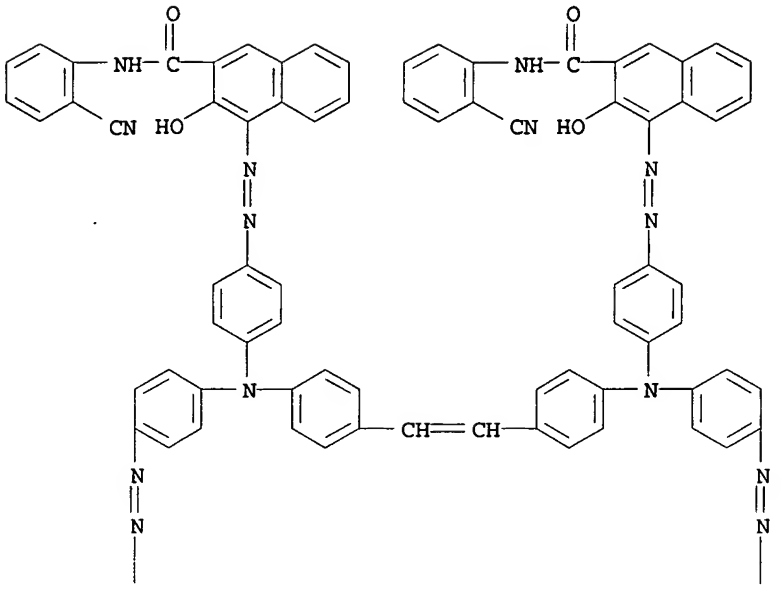


RN 110573-31-4 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-(2-cyanophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



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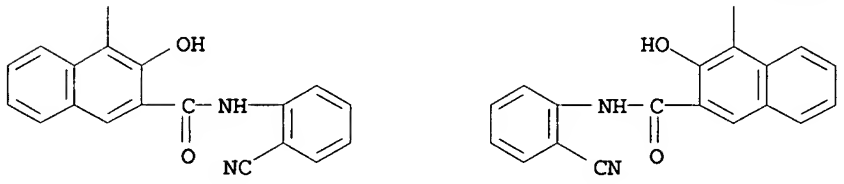
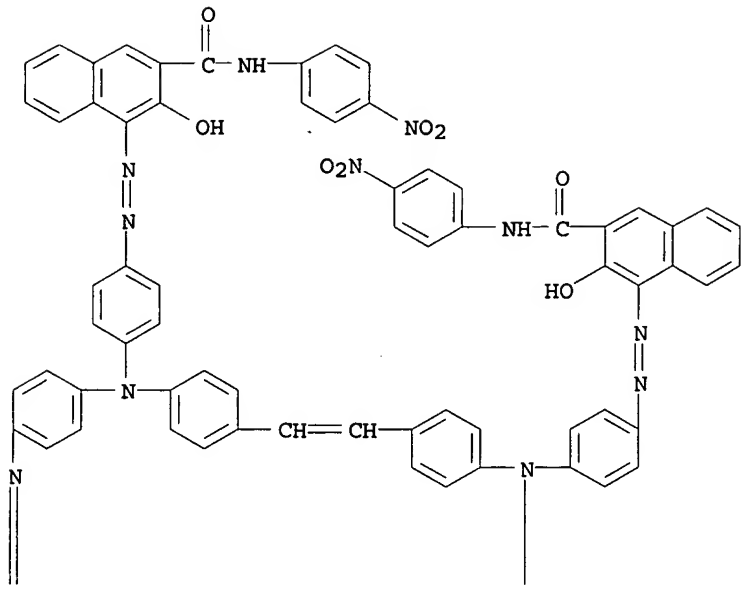


RN 110573-32-5 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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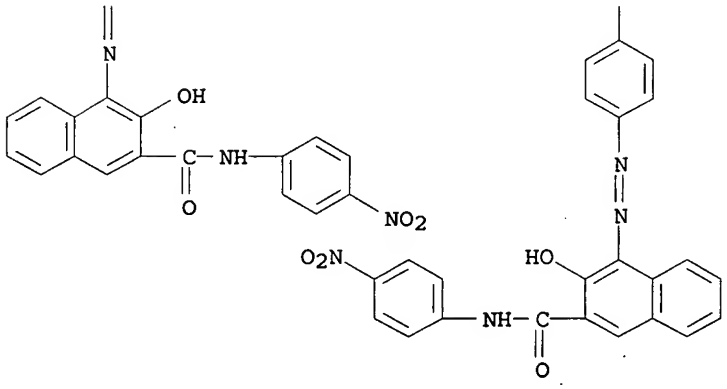
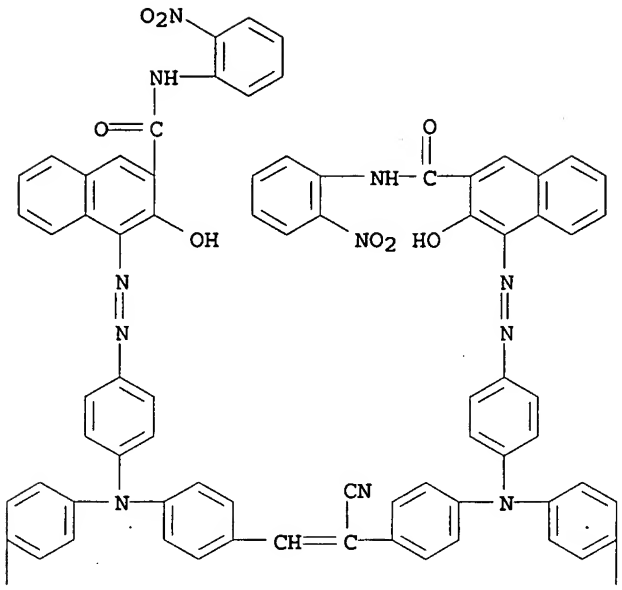


RN 110573-33-6 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[(1-cyano-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-(2-nitrophenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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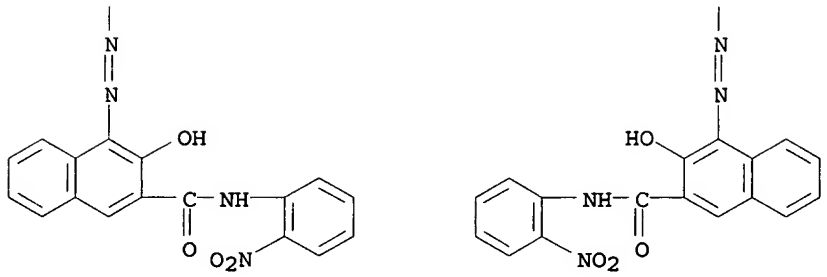
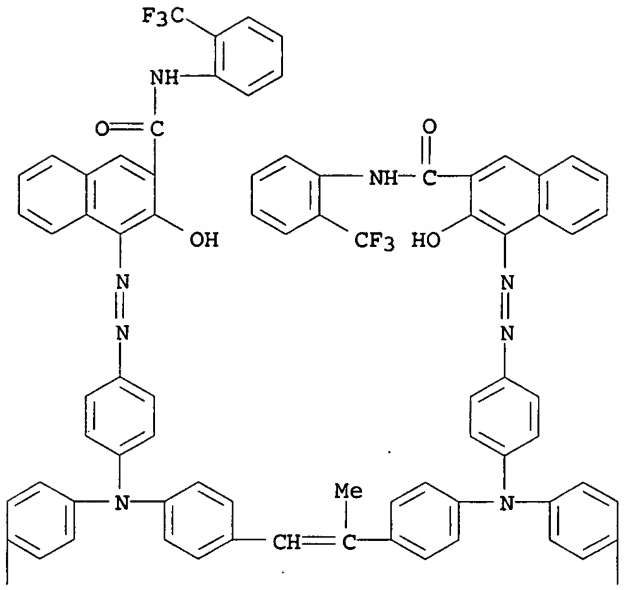


RN 110573-34-7 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[(1-methyl-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-[2-(trifluoromethyl)phenyl]-(9CI) (CA INDEX NAME)

PAGE 1-A



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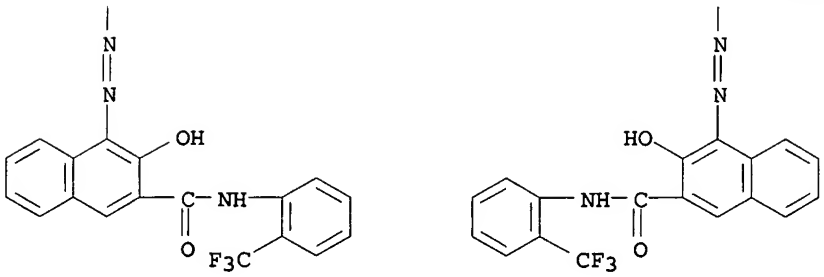

RN 110573-35-8 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[(1-cyano-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-[1,1'-biphenyl]-4-yl-3-hydroxy- (9CI) (CA INDEX NAME)

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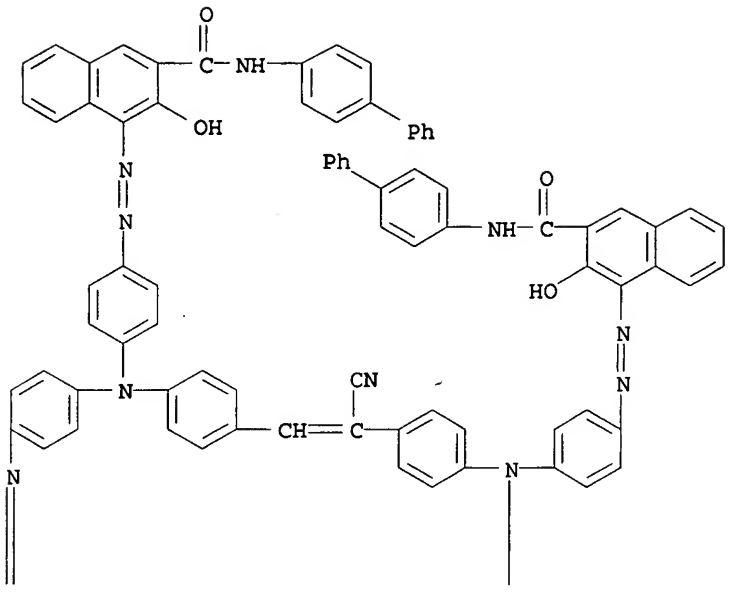

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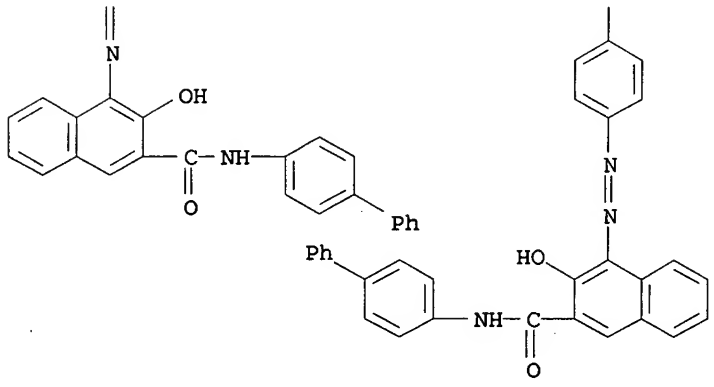

RN 110573-37-0 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4'-[[[4-[2-[4-[bis[4-[[2-hydroxy-3-[[(phenylmethyl)amino]carbonyl]-1-naphthalenyl]azo]phenyl]amino]-3-methoxyphenyl]ethenyl]phenyl]imino]bis(4,1-phenyleneazo)]bis[3-hydroxy-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

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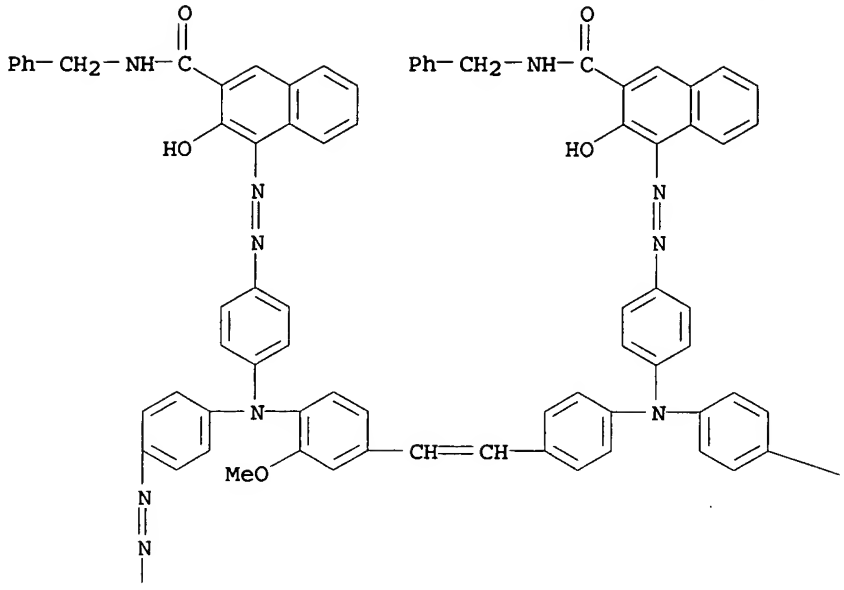

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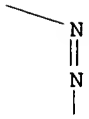

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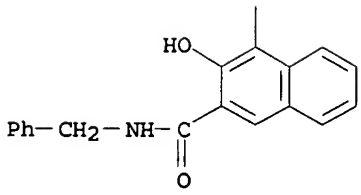

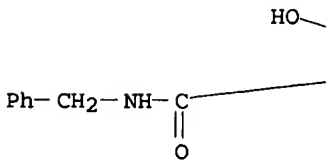

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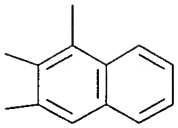

RN 110573-38-1 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[(2,5-dimethyl-4,1-phenylene)nitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-methyl- (9CI) (CA INDEX NAME)

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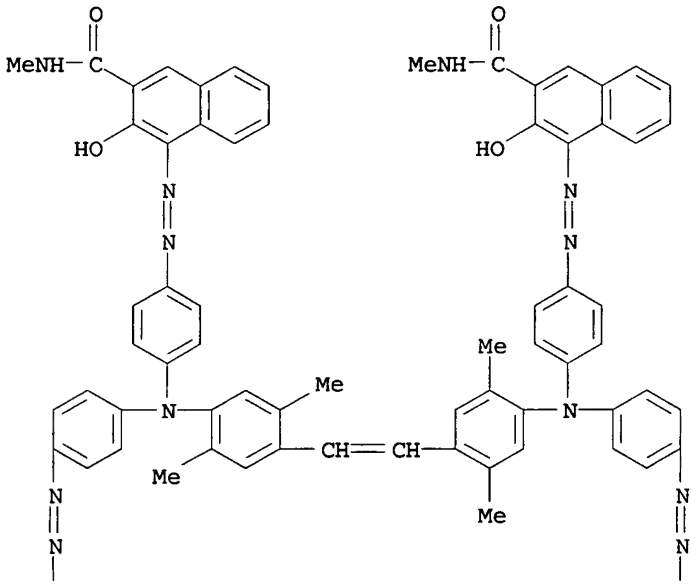

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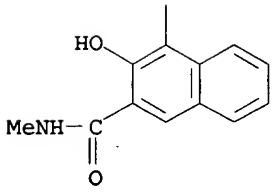

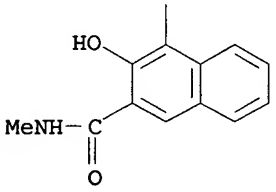

RN 110573-39-2 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-(2-methoxy-3-dibenzofuranyl)- (9CI) (CA INDEX NAME)

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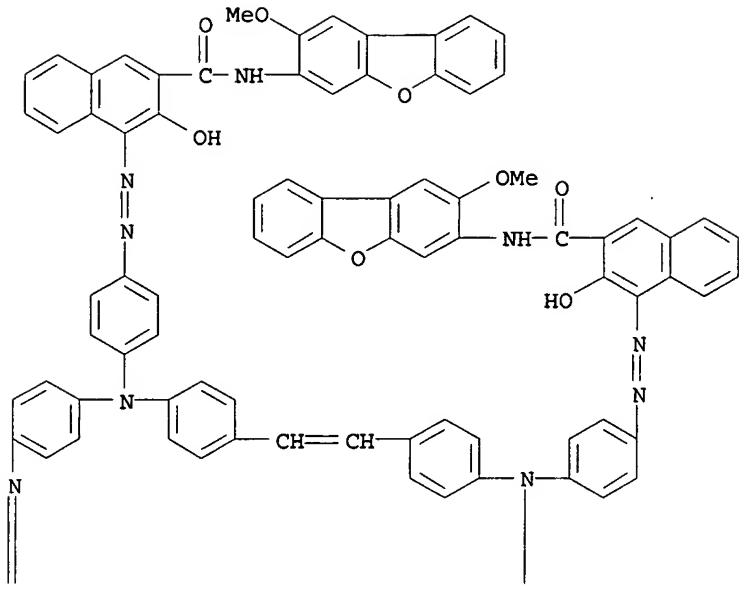

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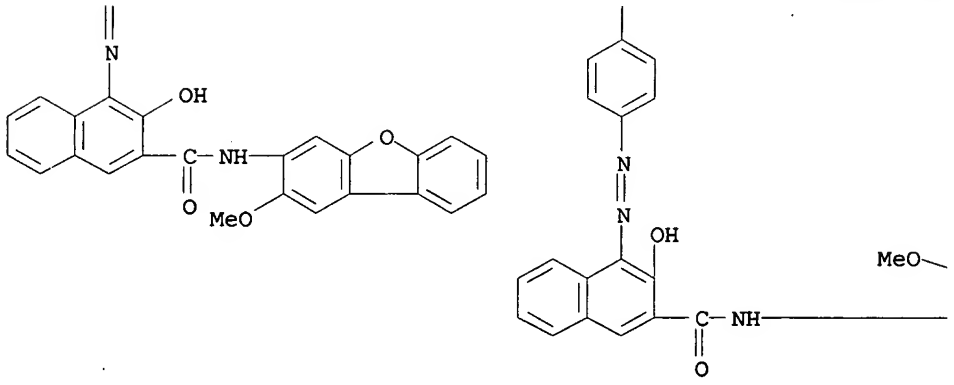

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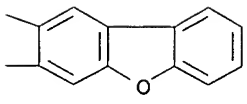

RN 110573-40-5 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4',4'',4'''-[[1-(trifluoromethyl)-1,2-ethenediyl]bis[(2-nitro-4,1-phenylene)nitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-, tetrakis(2,2-diphenylhydrazide) (9CI) (CA INDEX NAME)

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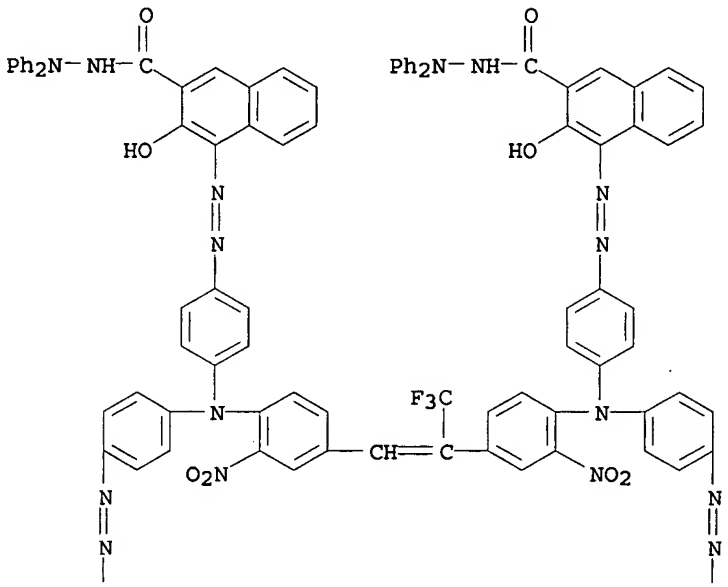

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RN 110573-41-6 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4',4'',4'''-[(1-methyl-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-, tetrakis[(phenylmethylene)hydrazide] (9CI) (CA INDEX NAME)

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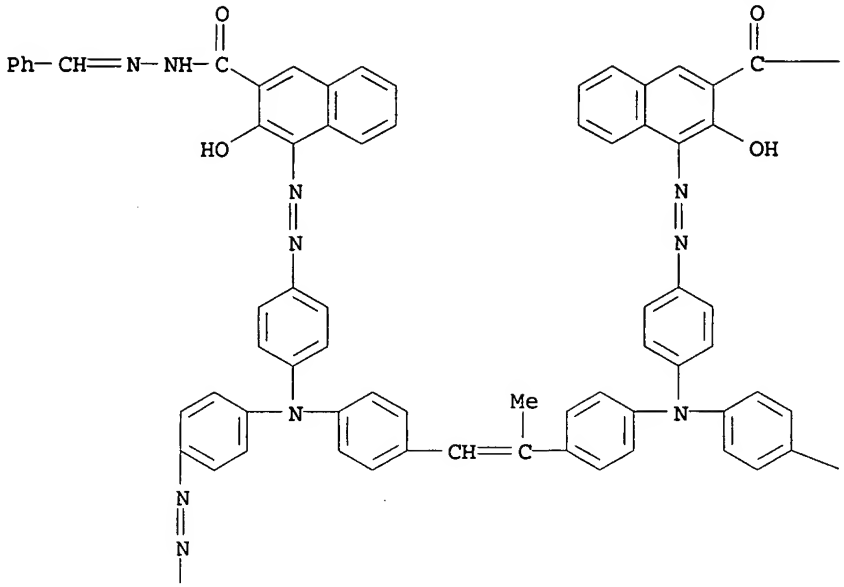

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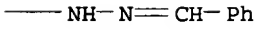

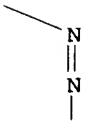

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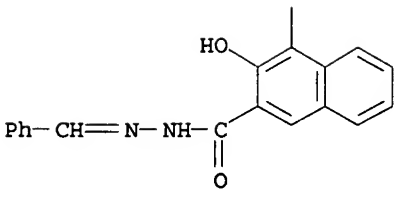

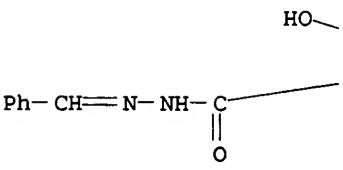

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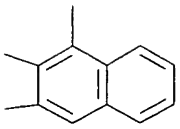

RN 110573-42-7 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 4,4',4'',4'''-[(1-phenyl-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-, tetrakis[[(2-chlorophenyl)methylene]hydrazide] (9CI) (CA INDEX NAME)

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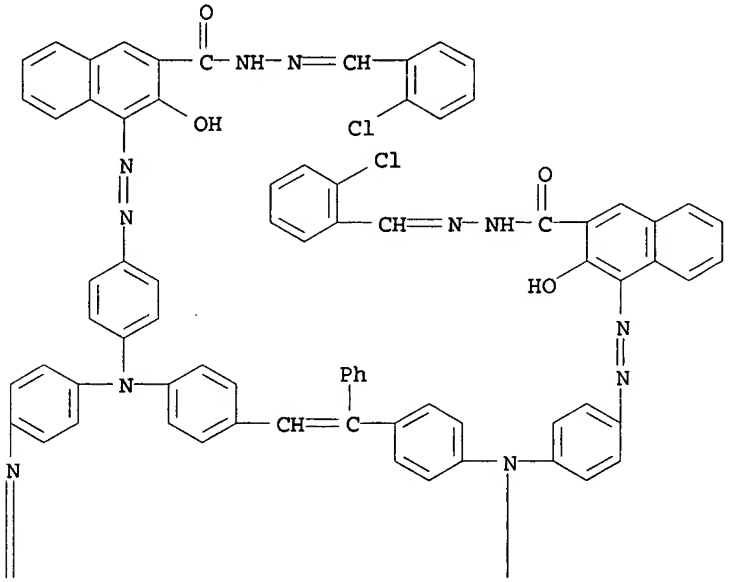

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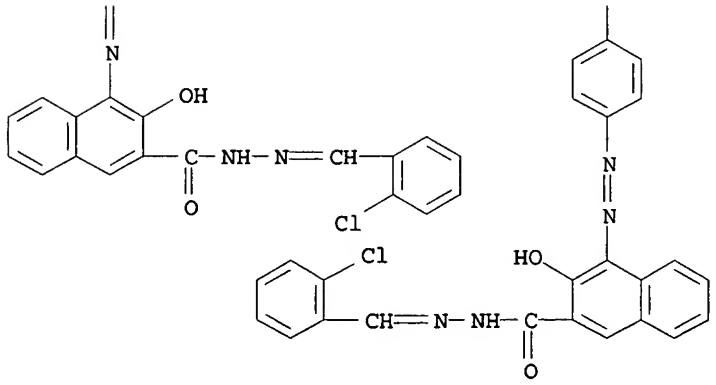

RN 110573-43-8 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 4,4',4'',4'''-[(1-cyano-2-methyl-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-, tetrakis[[(4-methoxyphenyl)methylene]hydrazide] (9CI) (CA INDEX NAME)

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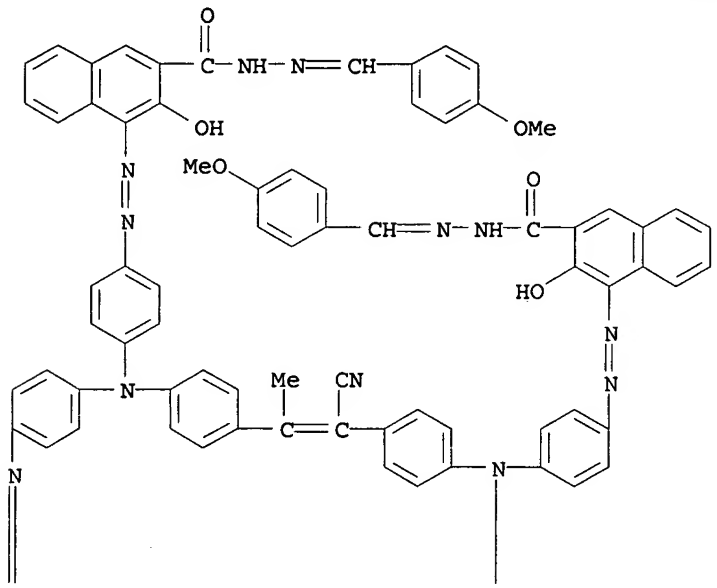

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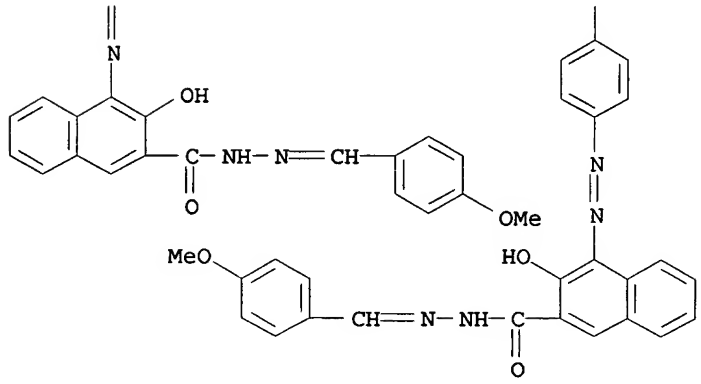

RN 110573-45-0 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[[1-(phenylmethyl)-1,2-ethenediyl]bis[4,1-phenylenenitrilo(4,1-phenyleneazo)]]tetrakis[N-(2-acetylphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

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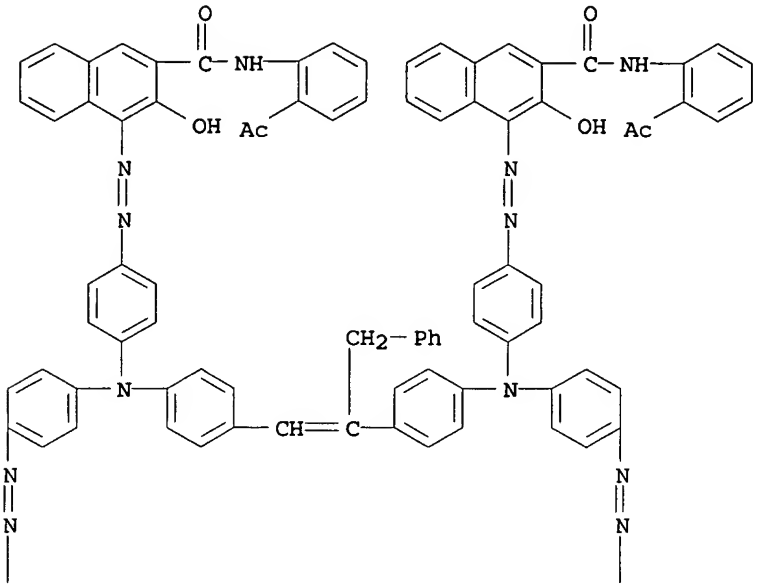

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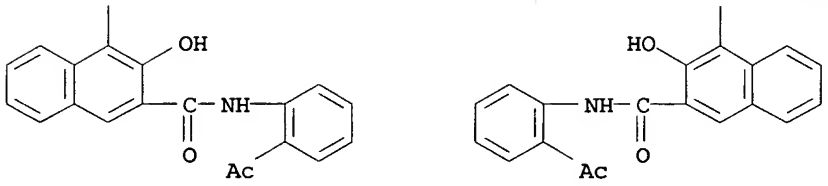

RN 110573-46-1 HCAPLUS
CN Benzeneacetonitrile, 4-[bis[4-[[2,3-dihydro-5-hydroxy-1,3-dioxo-2-(phenylmethyl)-1H-benz[de]isoquinolin-6-yl]azo]phenyl]amino]-α-[[4-[bis[4-[[2,3-dihydro-5-hydroxy-1,3-dioxo-2-(phenylmethyl)-1H-benz[de]isoquinolin-6-yl]azo]phenyl]amino]phenyl]methylene]- (9CI) (CA INDEX NAME)

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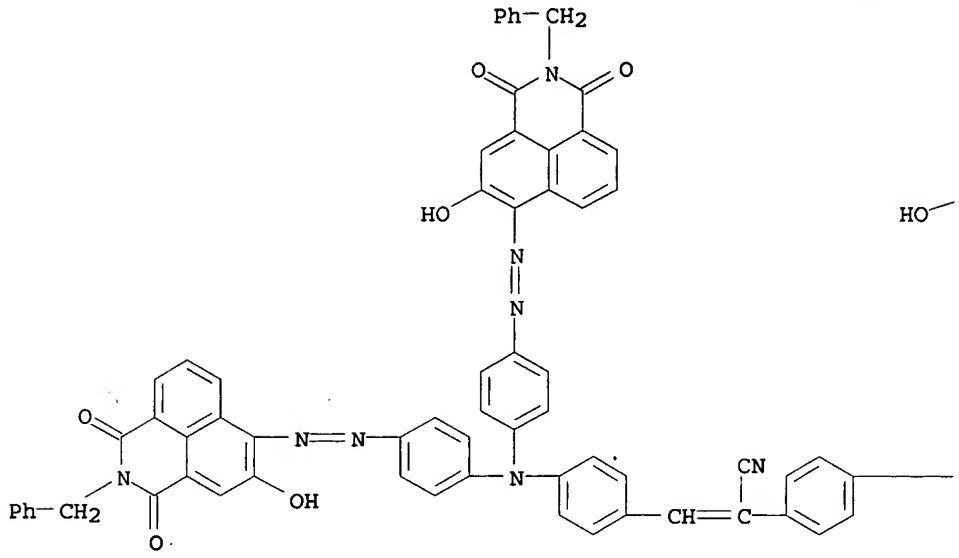

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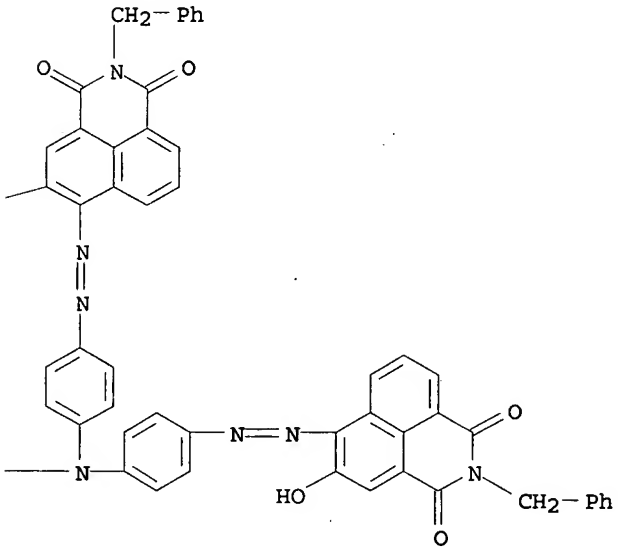

RN 110573-53-0 HCAPLUS
CN 11H-Benzo[a]carbazole-2-carboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

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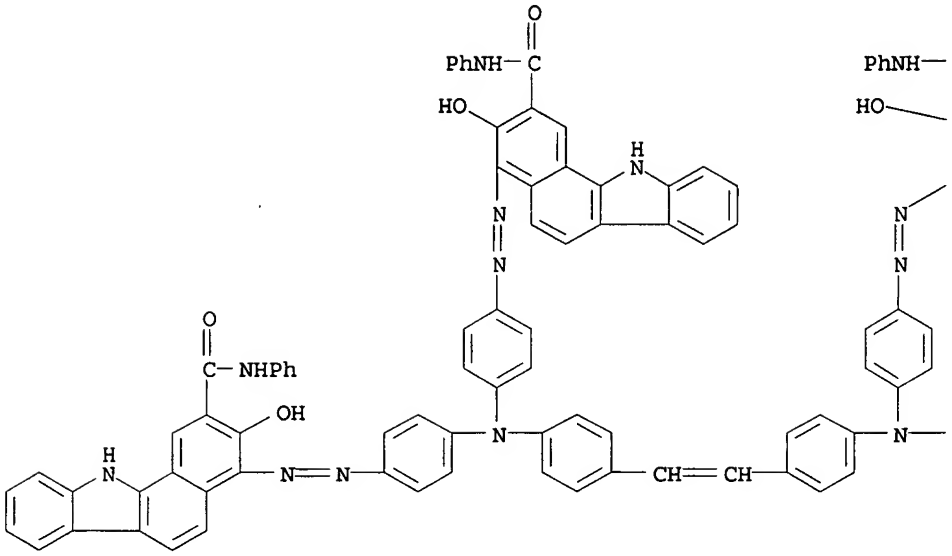

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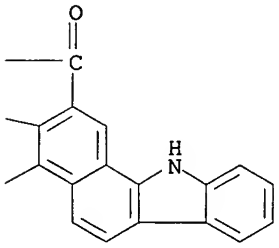

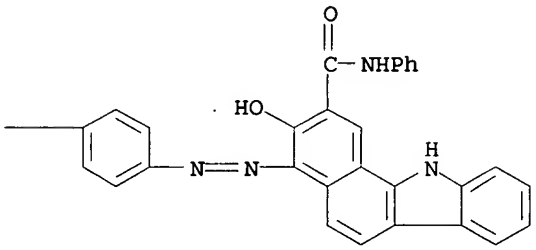

RN 110573-54-1 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[(1-methyl-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-(2-cyanophenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

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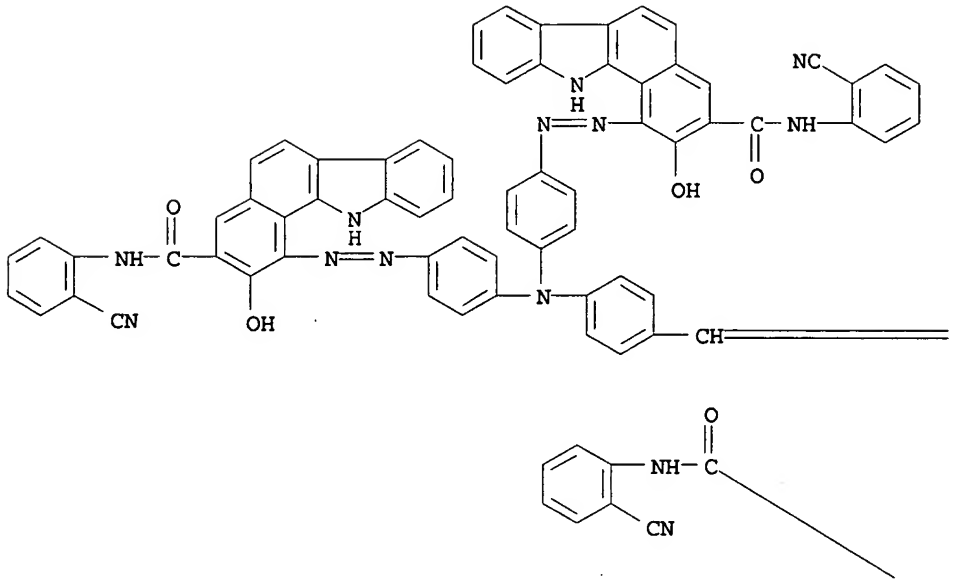

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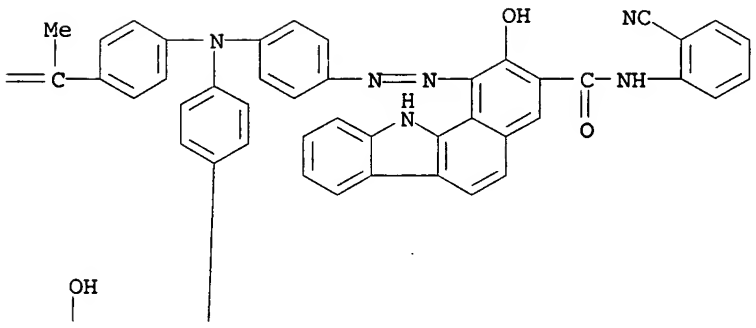

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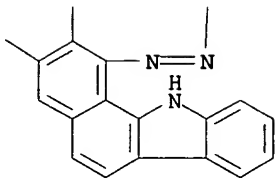

RN 110573-55-2 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[(1-phenyl-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-nitrophenyl)- (9CI) (CA INDEX NAME)

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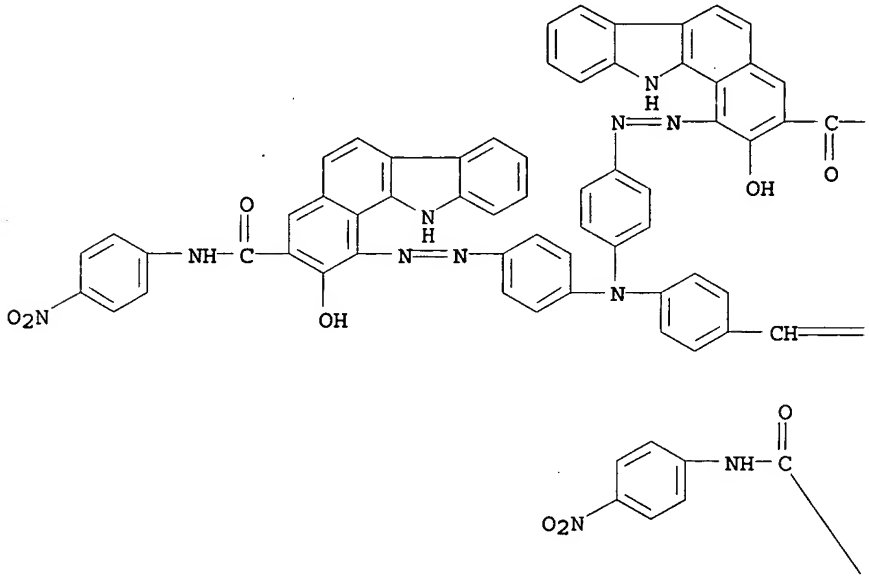

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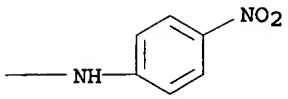

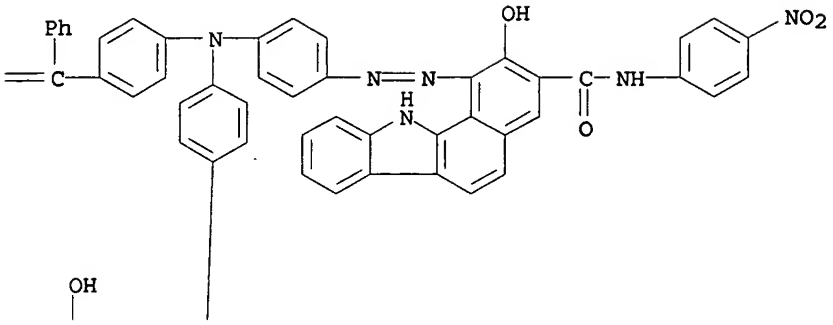

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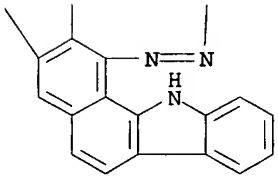

RN 110573-56-3 HCAPLUS
CN 2-Anthracenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[(2-methoxy-4,1-phenylene)nitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-[2-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)

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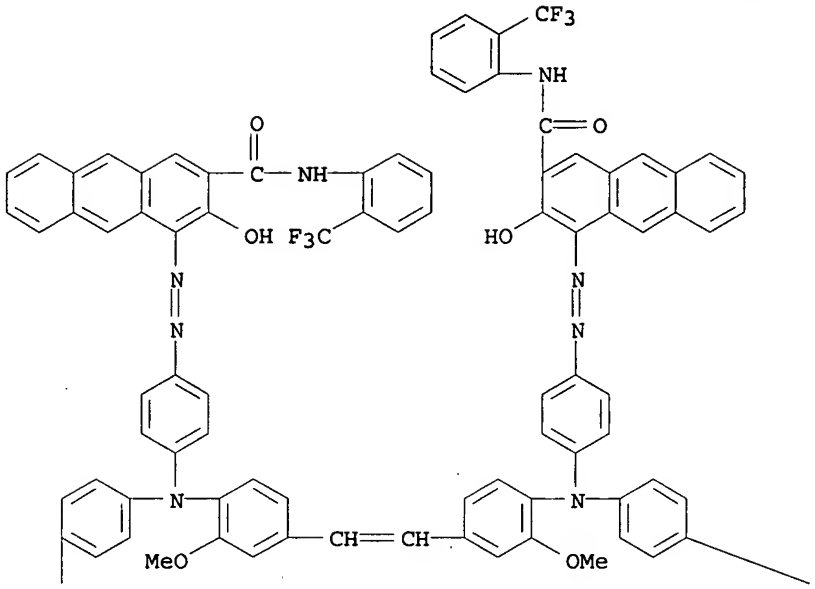

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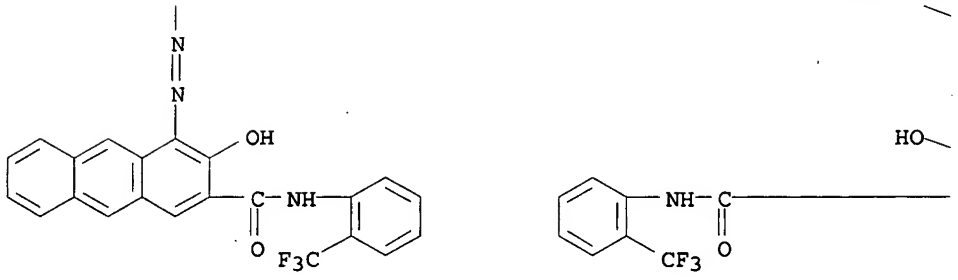

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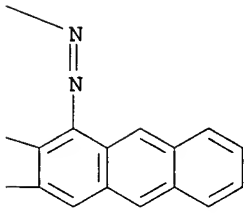

RN 110573-57-4 HCAPLUS
CN 2-Anthracenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[(2-nitro-4,1-phenylene)nitrilobis(4,1-phenyleneazo)]]tetrakis[N-[4-(dimethylamino)phenyl]-3-hydroxy- (9CI) (CA INDEX NAME)

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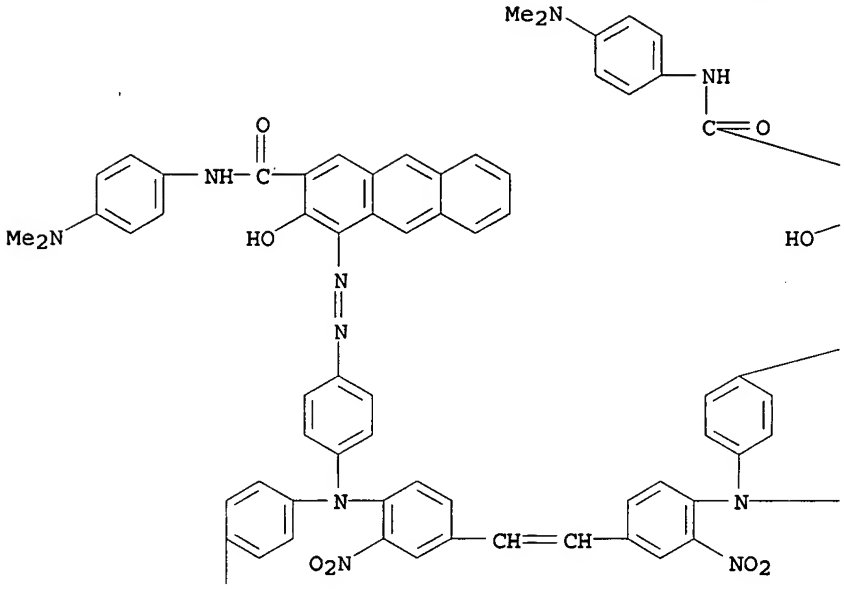

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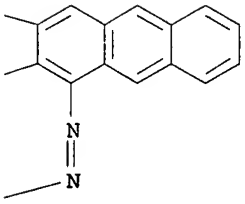

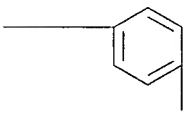

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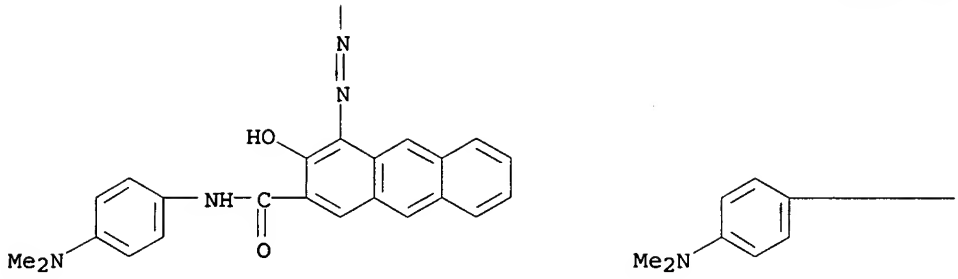

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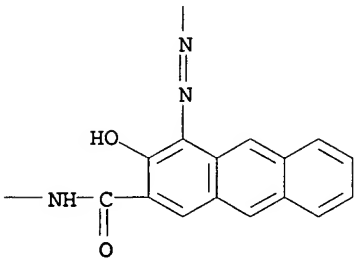

RN 110573-58-5 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethenediylbis[(2,5-dimethyl-4,1-phenylene)nitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(phenylmethyl)- (9CI) (CA INDEX NAME)

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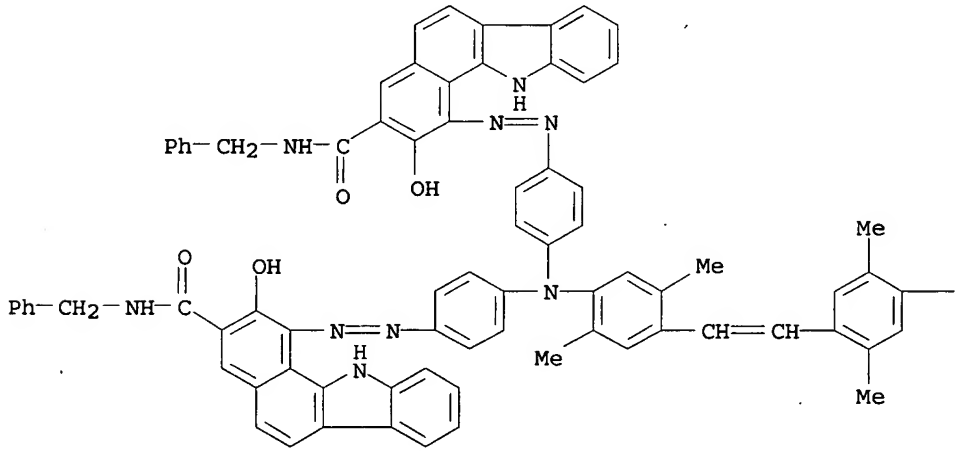

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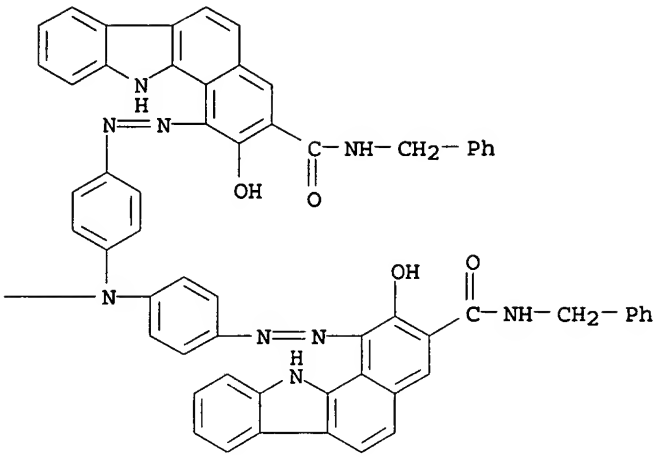
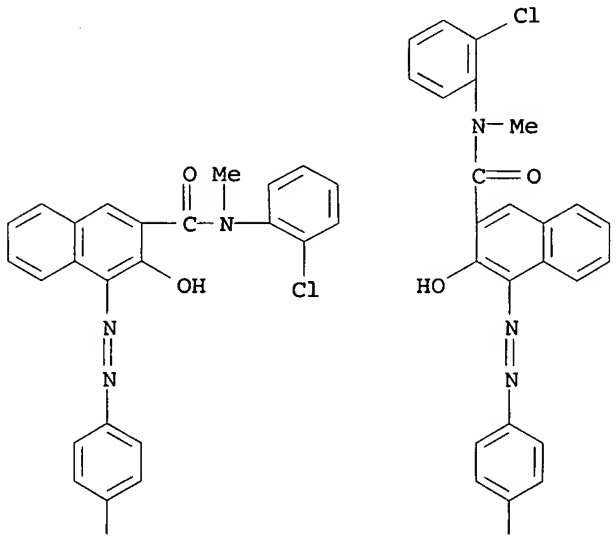


RN 110573-60-9 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4'-[1,2-ethenediylbis[[2-(trifluoromethyl)-4,1-phenylene]nitrilobis(4,1-phenyleneazo)]]tetrakis[N-(2-chlorophenyl)-3-hydroxy-N-methyl-(9CI) (CA INDEX NAME)

PAGE 1-A



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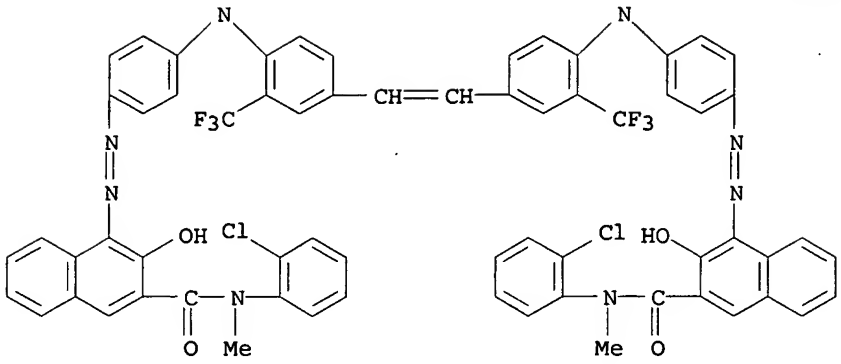
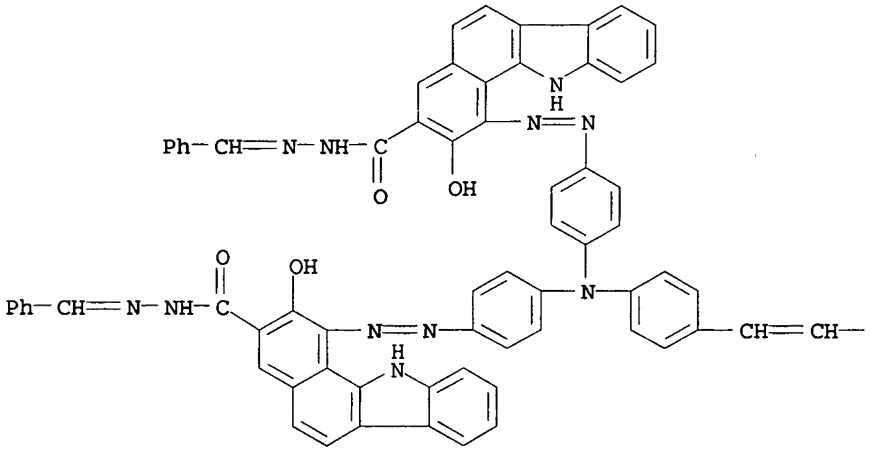


RN 110573-61-0 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxylic acid, 1,1',1'',1'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-, tetrakis[(phenylmethylene)hydrazide] (9CI) (CA INDEX NAME)

PAGE 1-A



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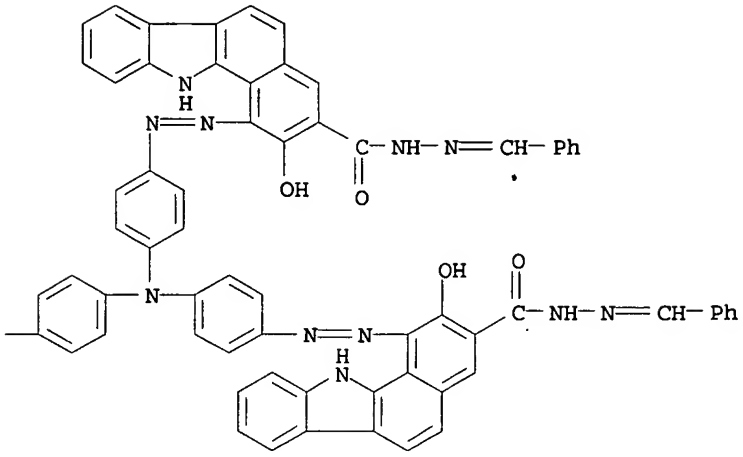

RN 110573-62-1 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxylic acid, 1,1',1'',1'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-, tetrakis[[(2-chlorophenyl)methylene]hydrazide] (9CI) (CA INDEX NAME)

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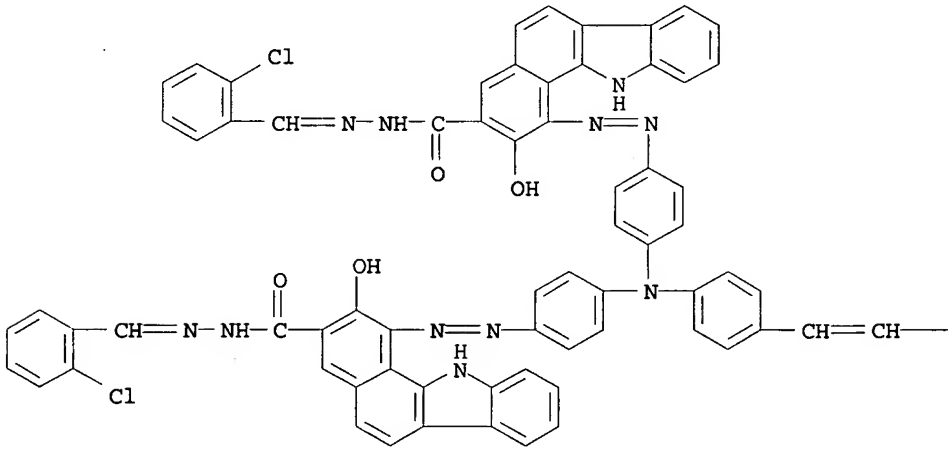

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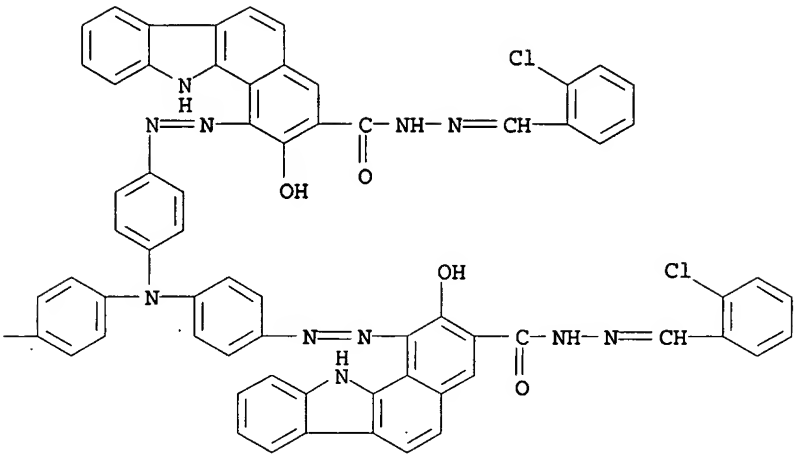

RN 110573-63-2 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxylic acid, 1,1'-[[[4-[2-[4-[6-[bis[4-[[2-hydroxy-3-[[[1-[2-(trifluoromethyl)phenyl]ethylidene]hydrazino]carbonyl]-11H-benzo[a]carbazol-1-yl]azo]phenyl]imino]-1-methyl-1H-benzimidazol-2-yl]phenyl]ethenyl]phenyl]imino]bis(4,1-phenyleneazo)]bis[2-hydroxy-, bis[[1-[2-(trifluoromethyl)phenyl]ethylidene]hydrazide] (9CI) (CA INDEX NAME)

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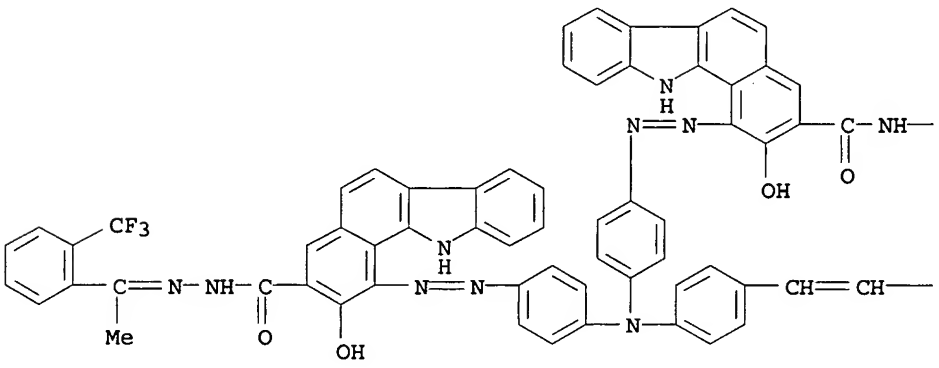

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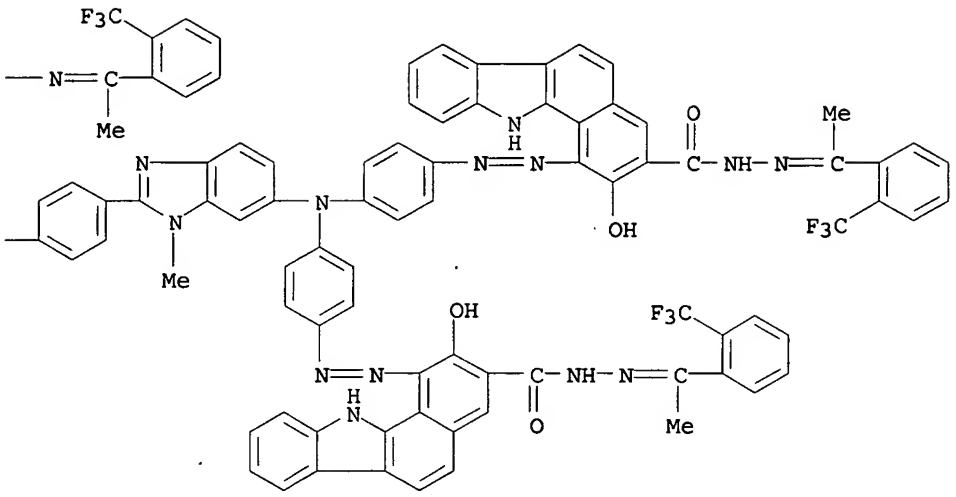

RN 110573-65-4 HCAPLUS
CN 7H-Benzimidazo[2,1-a]benz[de]isoquinolin-7-one, 4,4'-[[[4-[2-[4'-[bis[5-[(5-hydroxy-7-oxo-7H-benzimidazo[2,1-a]benz[de]isoquinolin-4-yl)azo]-1-naphthalenyl]amino][1,1'-biphenyl]-4-yl]ethenyl]phenyl]imino]bis(5,1-naphthalenediylazo)]bis[5-hydroxy- (9CI) (CA INDEX NAME)

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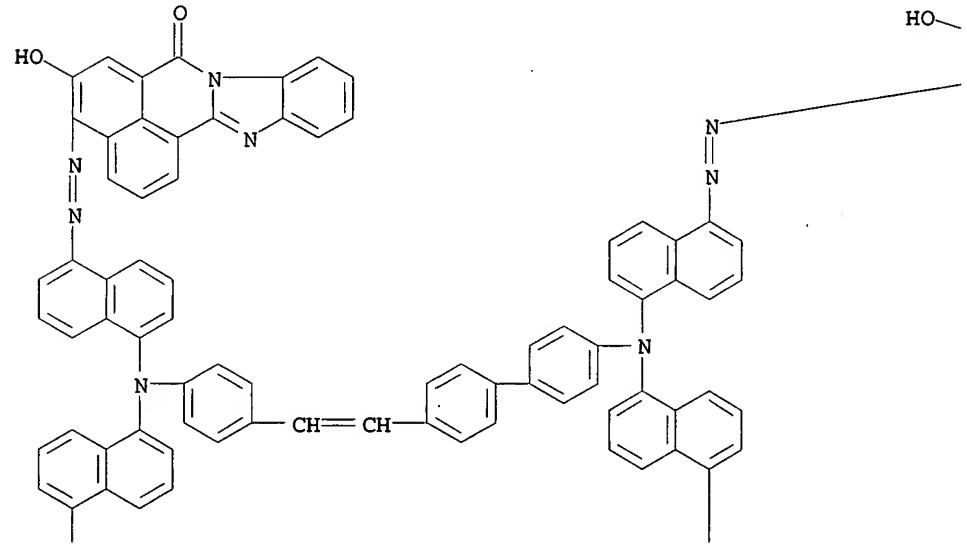

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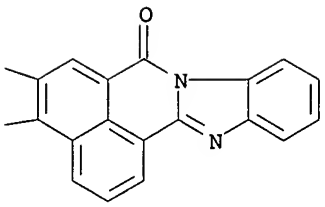

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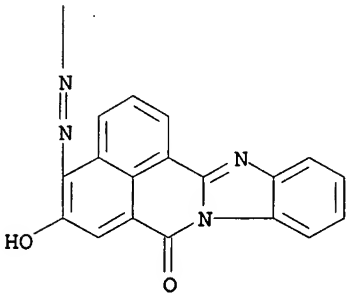

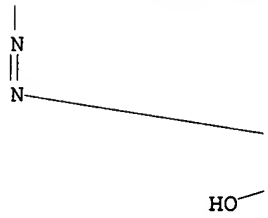

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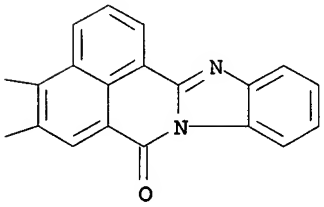

RN 110573-67-6 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[[4-[2-[4-[6-[bis[4-[[3-[[(2-chlorophenyl)amino]carbonyl]-2-hydroxy-11H-benzo[a]carbazol-1-yl]azo]phenyl]amino]-2-benzoxazolyl]-2-methylphenyl]ethenyl]phenyl]imino]bis(4,1-phenyleneazo)]bis[N-(2-chlorophenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

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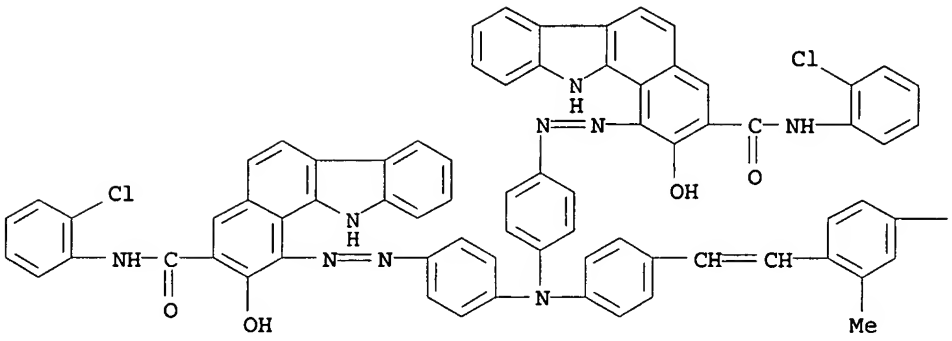

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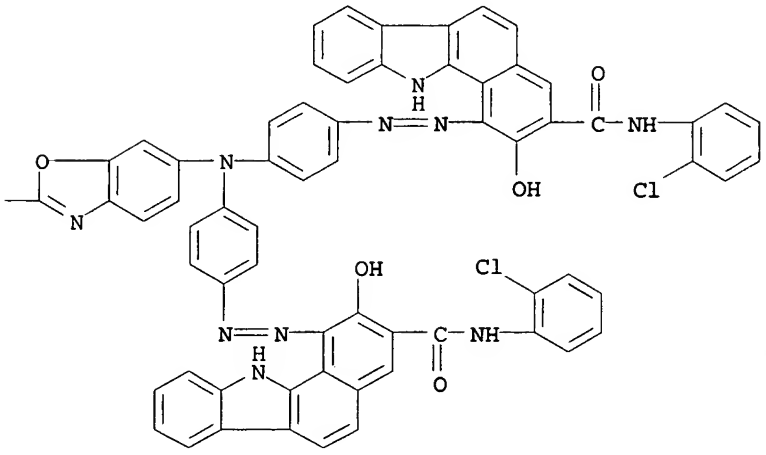

RN 110573-69-8 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(6,2-benzoxazolediylazo)]]tetrakis[N-(2-chlorophenyl)-3-hydroxy- (9CI) (CA INDEX NAME)

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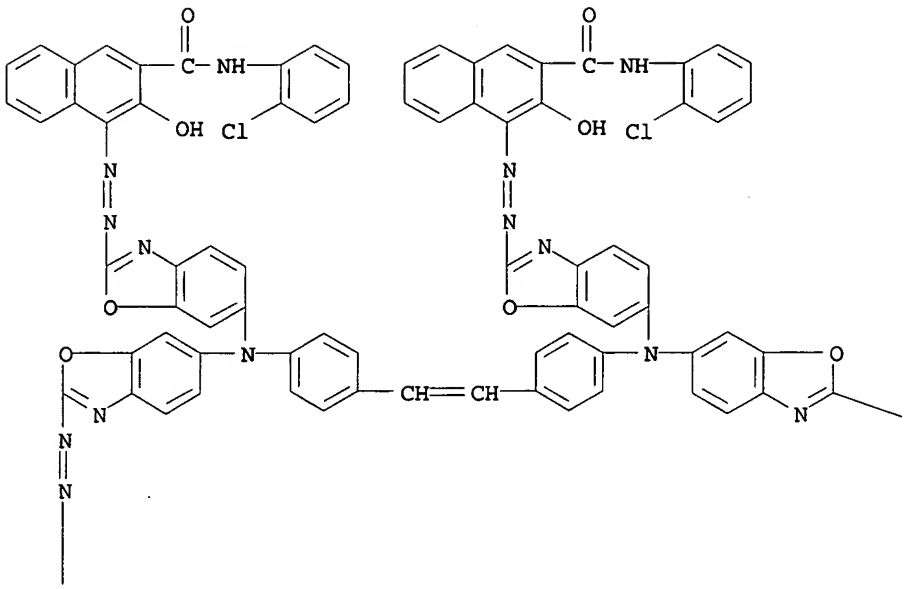

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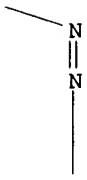

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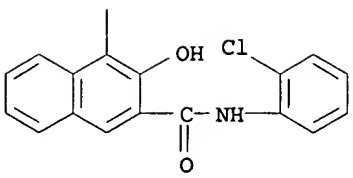

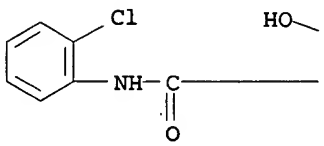

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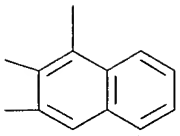

RN 110573-70-1 HCAPLUS
CN 3-Dibenzofurancarboxamide, 1,1',1'',1'''-[1,2-ethenediylbis[(2-chloro-4,1-phenylene)nitrilobis([1,1'-biphenyl]-4',4-diylazo)]]tetrakis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

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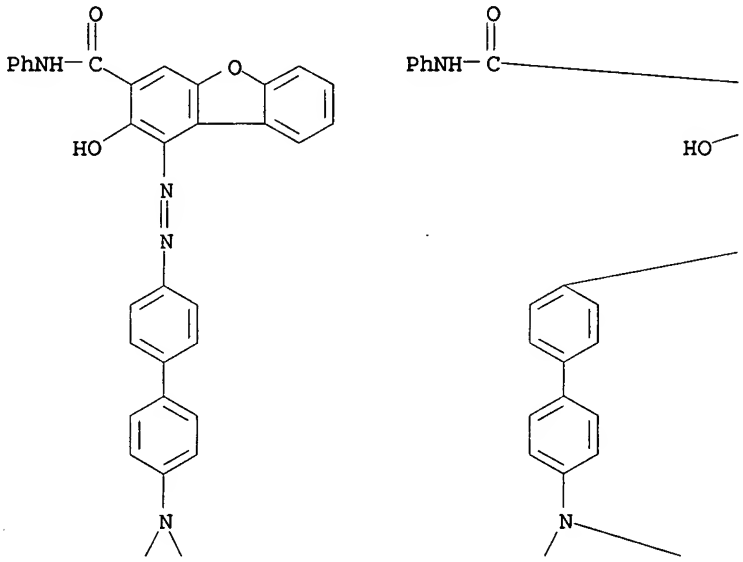

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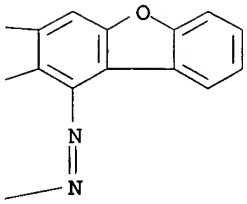

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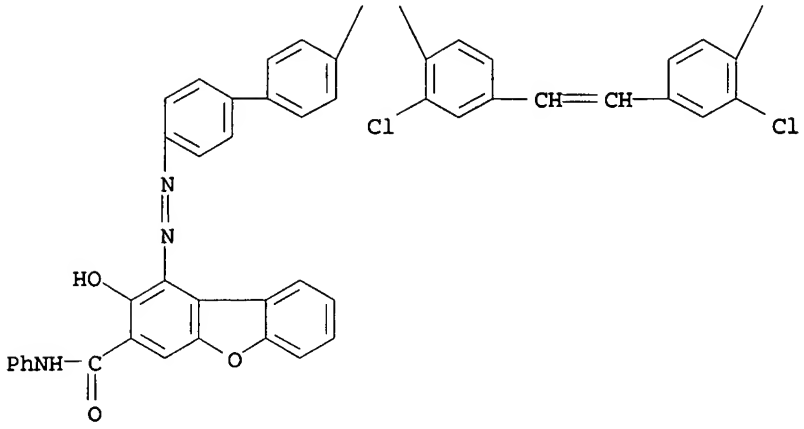

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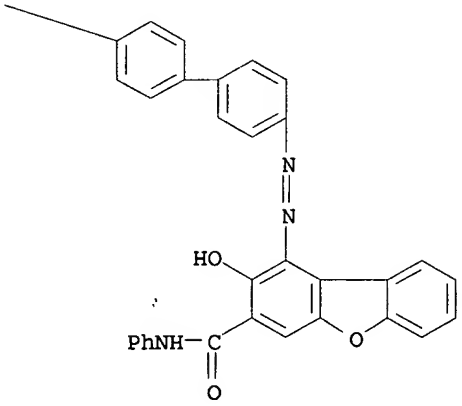

RN 110573-71-2 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenylene-1,3,4-oxadiazole-5,2-diyl-4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

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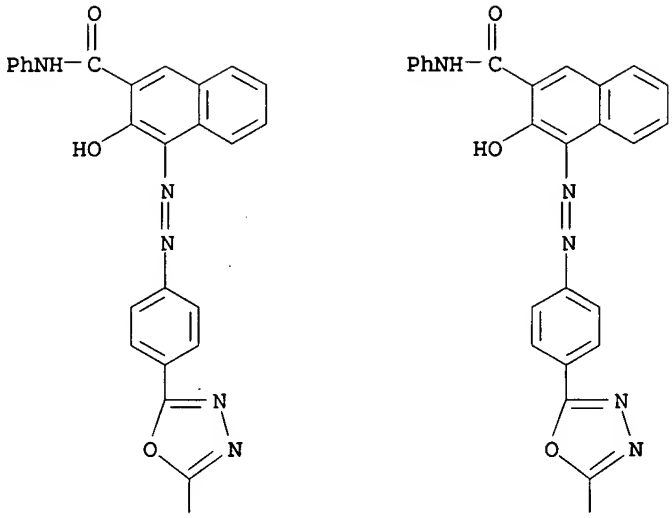

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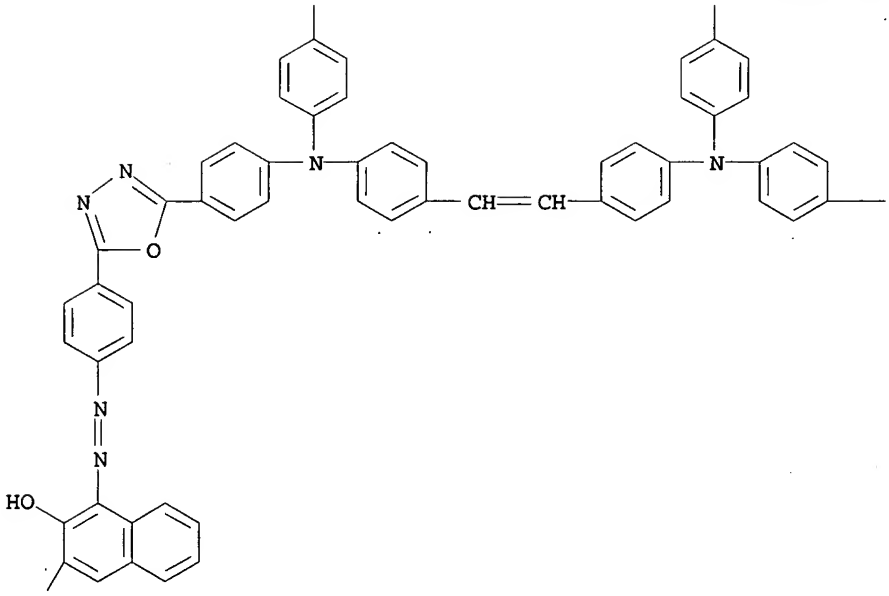

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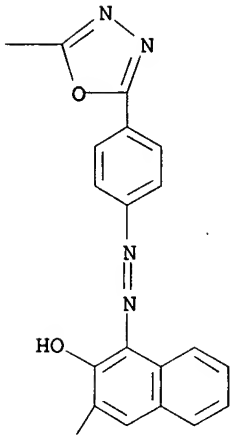

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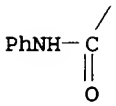

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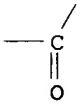

RN 110573-74-5 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4'-[(1-cyano-1,2-ethenediyl)bis[(2-methoxy-4,1-phenylene)nitrilobis[(9-ethyl-9H-carbazole-6,3-diyl)azo]]]tetrakis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

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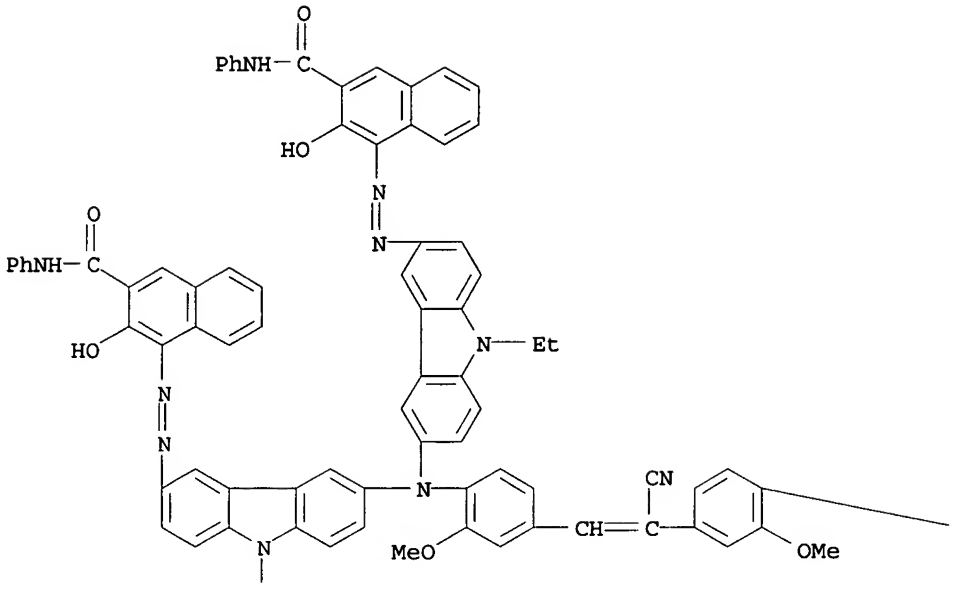

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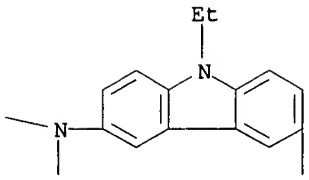

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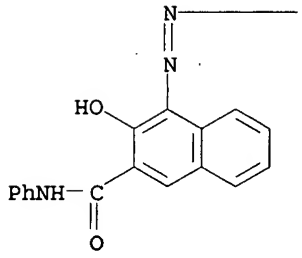

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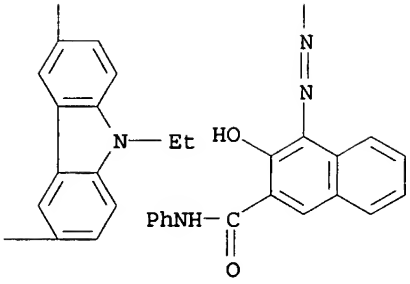

RN 110591-95-2 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-(2-chlorophenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

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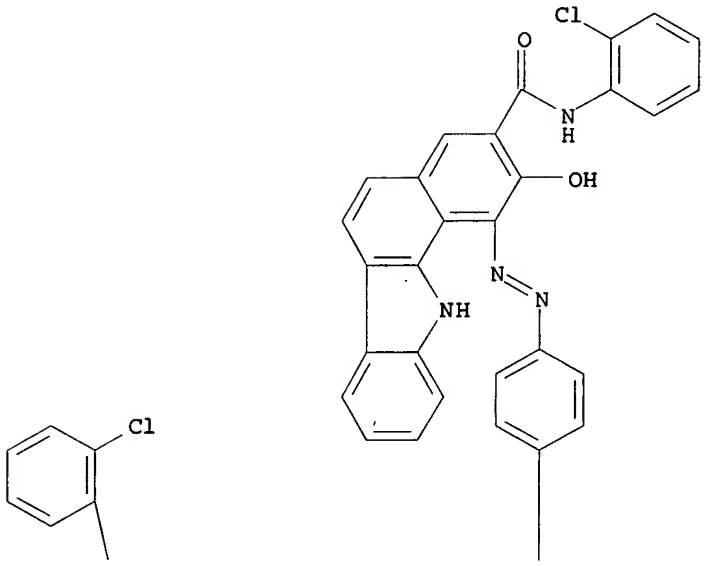

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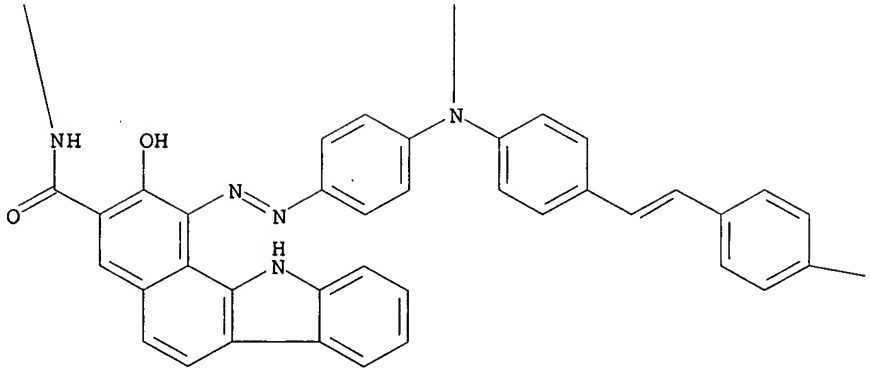

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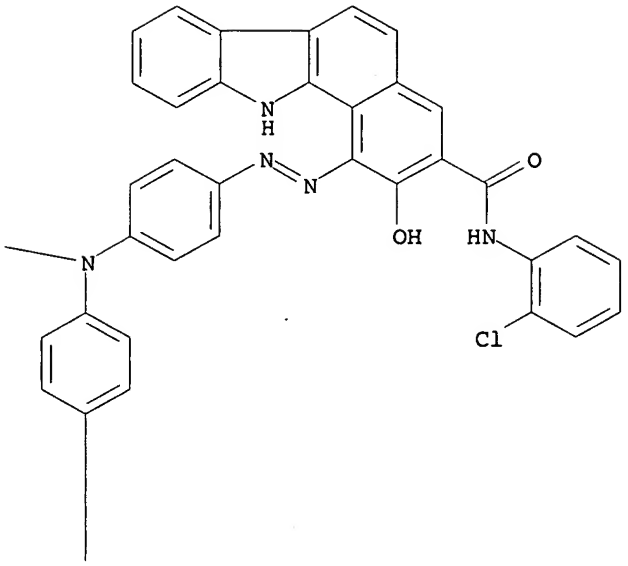

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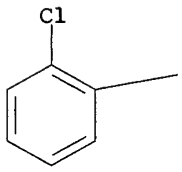

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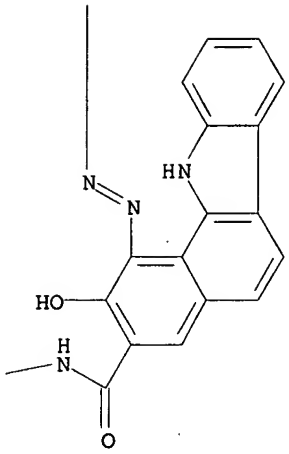

RN 110591-96-3 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[(2-cyano-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[N-(2,4-dimethylphenyl)-2-hydroxy- (9CI) (CA INDEX NAME)

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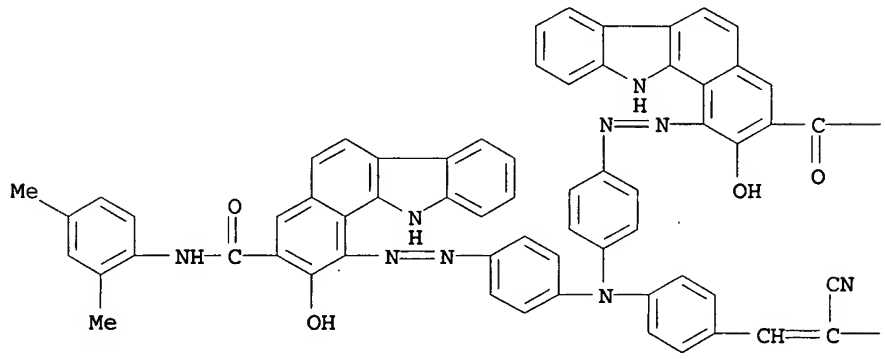

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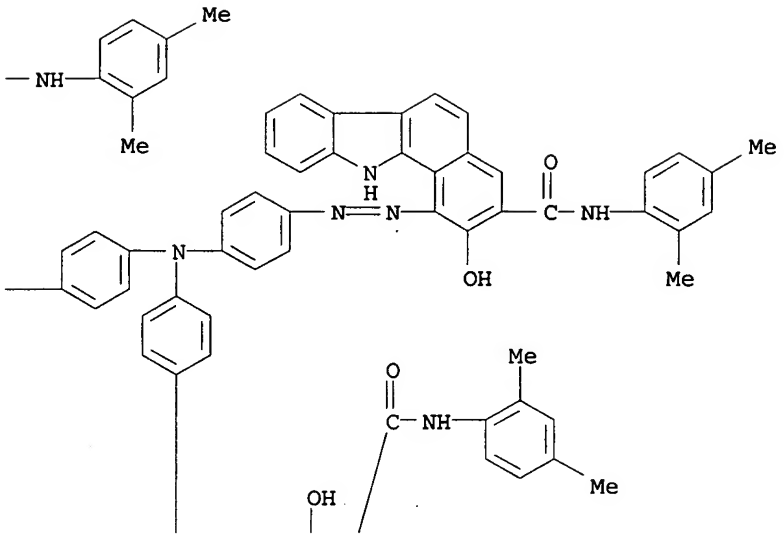

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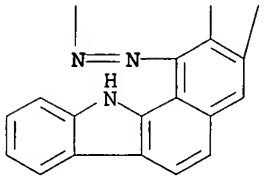

RN 110591-97-4 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1',1'',1'''-[(1-bromo-1,2-ethenediyl)bis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[2-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

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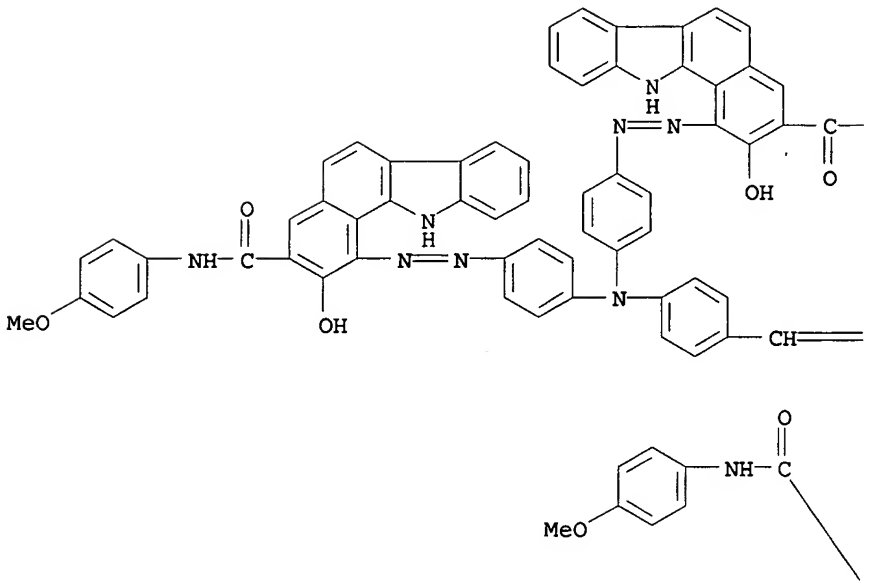

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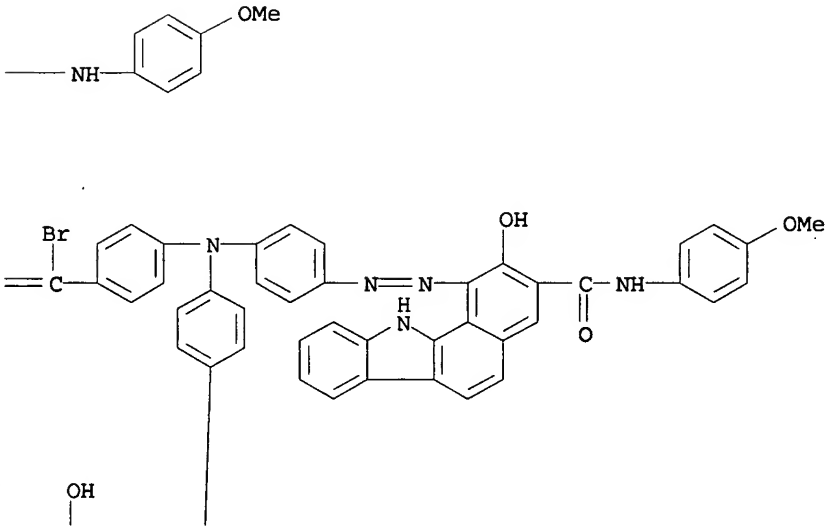

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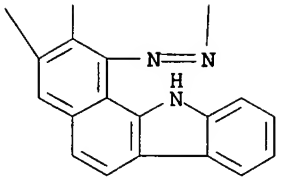

RN 110591-99-6 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxylic acid, 1,1'-[[[4-[2-[4-[6-[bis[4-[[3-[[[bis(2-chlorophenyl)methylene]hydrazino]carbonyl]-2-hydroxy-11H-benzo[a]carbazol-1-yl]azo]phenyl]amino]-2-benzoxazolyl]phenyl]ethenyl]phenyl]imino]bis(4,1-phenyleneazo)]bis[2-hydroxy-, bis[[bis(2-chlorophenyl)methylene]hydrazide] (9CI) (CA INDEX NAME)

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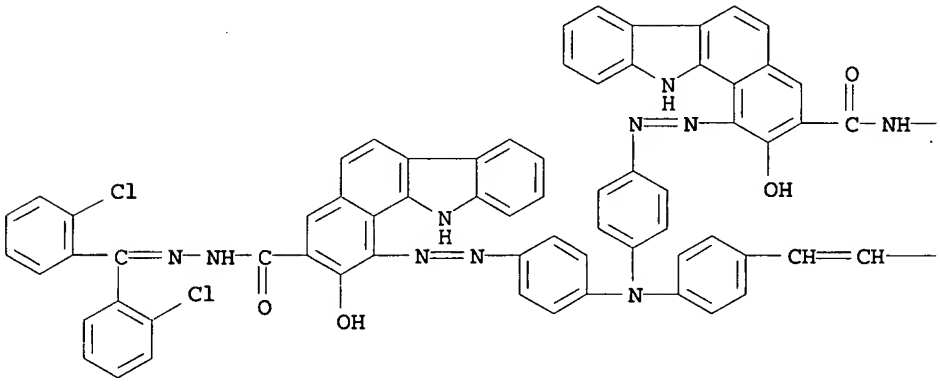

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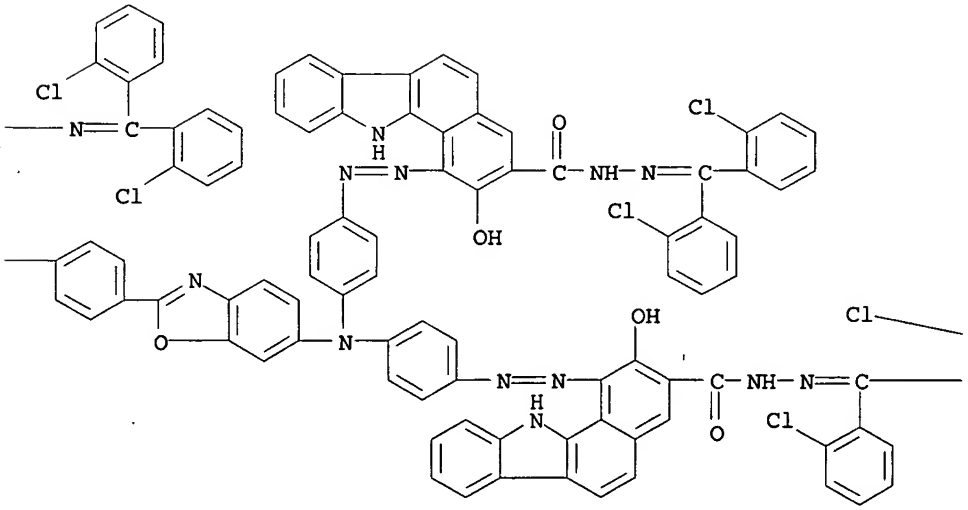
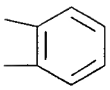
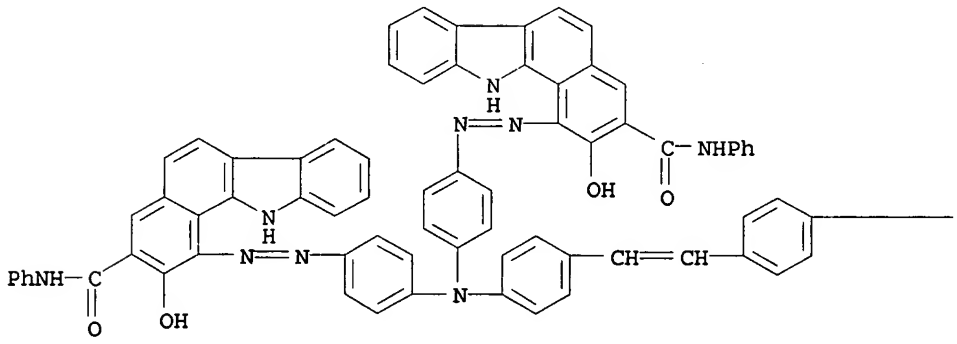


PAGE 1-C

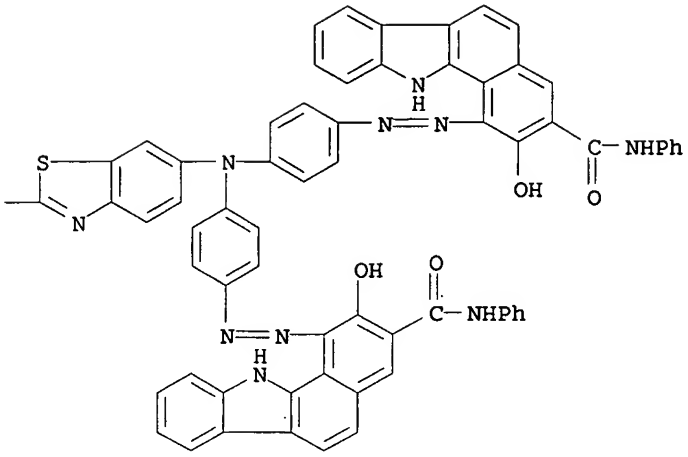


RN 110592-00-2 HCAPLUS
CN 11H-Benzo[a]carbazole-3-carboxamide, 1,1'-[[[4-[2-[4-[6-[bis[4-[[2-hydroxy-3-[(phenylamino)carbonyl]-11H-benzo[a]carbazol-1-yl]azo]phenyl]amino]-2-benzothiazolyl]phenyl]ethenyl]phenyl]imino]bis(4,1-phenyleneazo)]bis[2-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

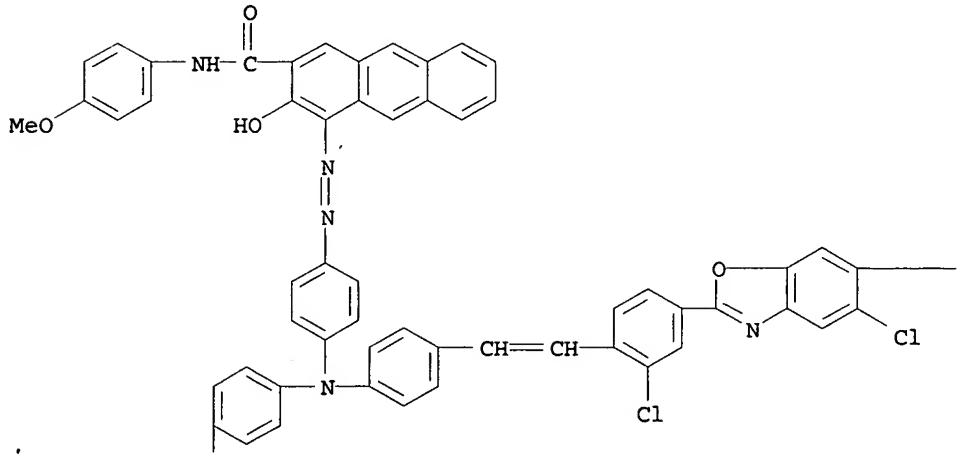


PAGE 1-B



RN 110592-01-3 HCAPLUS
CN 2-Anthracenecarboxamide, 4,4'-[[[4-[2-[4-[6-[bis[4-[[2-hydroxy-3-[[(4-methoxyphenyl)amino]carbonyl]-1-anthracenyl]azo]phenyl]amino]-5-chloro-2-benzoxazolyl]-2-chlorophenyl]ethenyl]phenyl]imino]bis(4,1-phenyleneazo)]bis[3-hydroxy-N-(4-methoxyphenyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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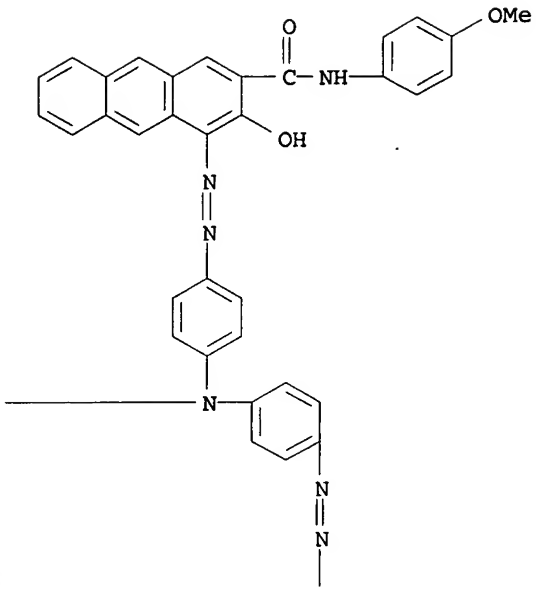

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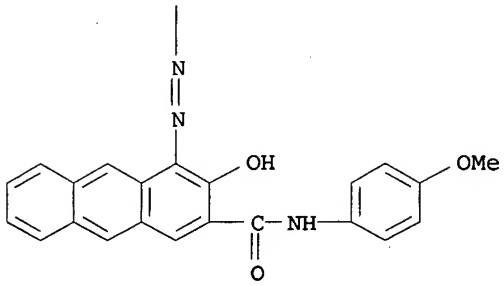
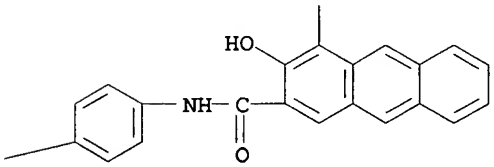


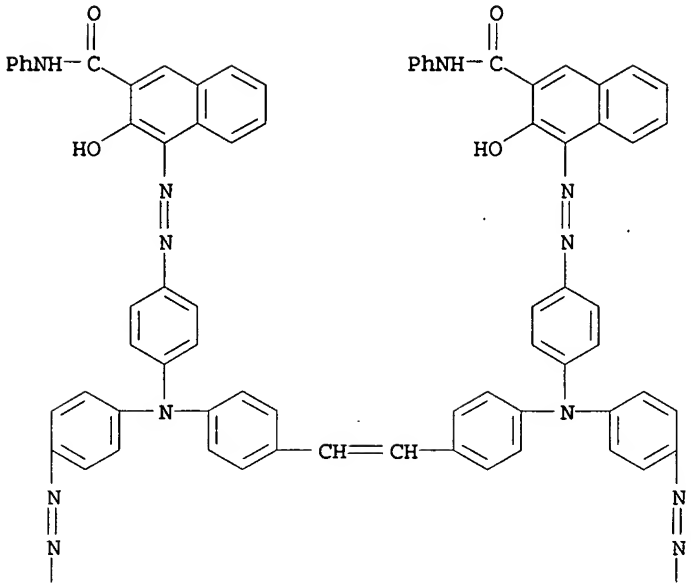
MeO—

PAGE 2-B

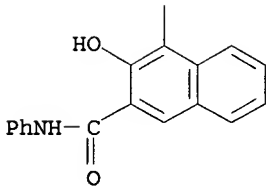


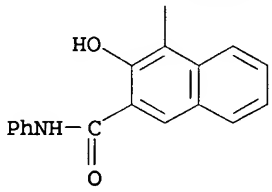
IT **98094-32-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, as electrophotog. charge-generating pigments)
RN 98094-32-7 HCAPLUS
CN 2-Naphthalenecarboxamide, 4,4',4'',4'''-[1,2-ethenediylbis[4,1-phenylenenitrilobis(4,1-phenyleneazo)]]tetrakis[3-hydroxy-N-phenyl- (9CI) (CA INDEX NAME)

PAGE 1-A

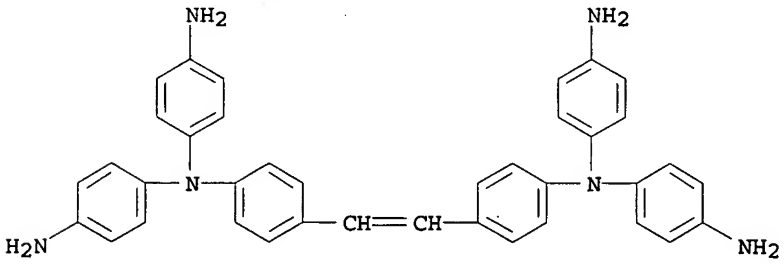


PAGE 2-A





IT **98094-46-3**
RL: USES (Uses)
(reaction of tetrazotized, electrophotog. charge-generating tetrakisazo pigments from)
RN 98094-46-3 HCAPLUS
CN 1,4-Benzenediamine, N,N''-(1,2-ethenediyldi-4,1-phenylene)bis[N-(4-aminophenyl)- (9CI) (CA INDEX NAME)



IC ICM G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other **Reprographic** Processes)
IT Electrophotographic **photoconductors**
(composite, containing charge-generating tetrakisazo pigments, for

improved sensitivity and voltage stability)
IT **98094-34-9 98113-92-9 110573-29-0**
110573-30-3 110573-31-4 110573-32-5
110573-33-6 110573-34-7 110573-35-8
110573-36-9 **110573-37-0 110573-38-1**
110573-39-2 110573-40-5 110573-41-6
110573-42-7 110573-43-8 110573-44-9
110573-45-0 110573-46-1 110573-47-2
110573-48-3 110573-49-4 110573-50-7 110573-51-8
110573-52-9 **110573-53-0 110573-54-1**
110573-55-2 110573-56-3 110573-57-4
110573-58-5 110573-59-6 **110573-60-9**
110573-61-0 110573-62-1 110573-63-2
110573-64-3 **110573-65-4** 110573-66-5
110573-67-6 110573-68-7 **110573-69-8**
110573-70-1 110573-71-2 110573-72-3
110573-73-4 **110573-74-5** 110573-75-6 110591-92-9
110591-93-0 110591-94-1 **110591-95-2**
110591-96-3 110591-97-4 110591-98-5
110591-99-6 110592-00-2 110592-01-3
RL: USES (Uses)
(electrophotog. charge-generating pigments)
IT **98094-32-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and use of, as electrophotog. charge-generating pigments)
IT **98094-46-3**
RL: USES (Uses)
(reaction of tetrazotized, electrophotog. charge-generating tetrakisazo pigments from)

L74 ANSWER 45 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1968:463568 HCAPLUS
DOCUMENT NUMBER: 69:63568
TITLE: **Photoconductive** polymeric and nonpolymeric triphenylamines for electrophotography
INVENTOR(S): Fox, Charles J.; Johnson, Arthur L.
PATENT ASSIGNEE(S): Eastman Kodak Co.
SOURCE: U.S., 5 pp. Division of U.S. 3141762
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3387973	A	19680611	US 1965-447937	1965 0316

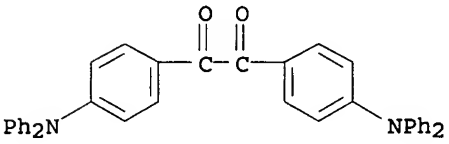
PRIORITY APPLN. INFO.: US 1965-447937 A 1965 0316

GI For diagram(s), see printed CA Issue.
AB Division of U.S. 3,141,762. An electrophotographic element is described comprising a conductive support coated with a **photoconductive** layer prepared from a compound having the general formula I, in which y is 0-16, n is 1-8, and Z is O or 2H atoms. For example, a polymer was prepared by adding 48 g. sebacyl chloride to a mixture of 50 g. Ph3N and 56 g. ZnCl2 in 500 ml. CH2Cl2. The resulting mixture was stirred while refluxing for 24 hrs. After hydrolysis the polymer was isolated by precipitation in Me2CO. Redissoln. of the product in CH2Cl2 and precipitation in MeOH gave 20 g.

poly(sebacyltriphenylamine). Ten g. of the product in 150 ml. dioxane was hydrogenated in the presence of 5 g. **Cu** chromite **catalyst.** After filtering and solvent removal, the product was coated on an Al sheet to produce an electrophotographic element. The addition of a sensitizer is preferred.

IT **18436-22-1 29223-81-2 29223-82-3 29297-12-9**
RL: USES (Uses)
(as **photoconductor** for electrophotography)

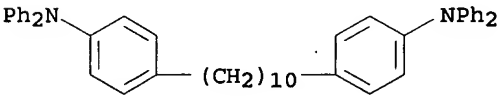
RN 18436-22-1 HCAPLUS
CN Ethanedione, bis[4-(diphenylamino)phenyl]- (9CI) (CA INDEX NAME)



RN 29223-81-2 HCAPLUS
CN Triphenylamine, 4,4'''-decamethylenebis-, polymers (8CI) (CA INDEX NAME)

CM 1

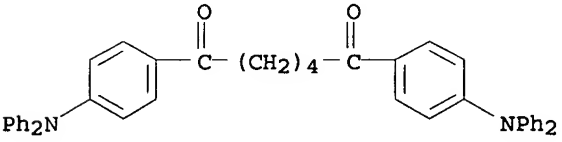
CRN 47869-78-3
CMF C46 H48 N2



RN 29223-82-3 HCAPLUS
CN 1,6-Hexanedione, 1,6-bis[p-(diphenylamino)phenyl]-, polymers (8CI) (CA INDEX NAME)

CM 1

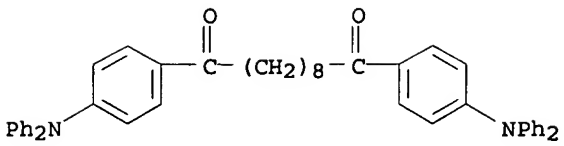
CRN 47862-56-6
CMF C42 H36 N2 O2



RN 29297-12-9 HCAPLUS
CN 1,10-Decanedione, 1,10-bis[p-(diphenylamino)phenyl]-, polymers (8CI) (CA INDEX NAME)

CM 1

CRN 47877-81-6
CMF C46 H44 N2 O2



INCL 096001500
CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
ST amines electrophotog; electrophotog amines; aluminum **photocond**
IT Photography
(electro-, **photoconductors** from triphenylamine condensation products with halides of dibasic carboxylic acid for)
IT **Photoconductors**
(from triphenylamine condensation products with dibasic carboxylic acids)
IT **18436-22-1 29223-81-2 29223-82-3 29297-12-9**
RL: USES (Uses)
(as **photoconductor** for electrophotography)

L74 ANSWER 46 OF 46 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1964:445383 HCAPLUS
DOCUMENT NUMBER: 61:45383
ORIGINAL REFERENCE NO.: 61:7868d-g
TITLE: Electrophotographic products
INVENTOR(S): Fox, C. J.; Johnson, A. L.
PATENT ASSIGNEE(S): Kodak S.A.
SOURCE: 21 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 626529		19630415	BE	
GB 1023378			GB	
US 3234280		19660208	US 1961-163092	1961 1229
PRIORITY APPLN. INFO.:			US	1961 1229

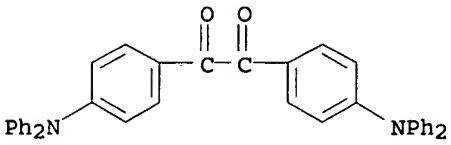
GI For diagram(s), see printed CA Issue.
AB **Photoconductors** of the general formula I, where Z is O or 2H, y = 0-16, and n = 1-8 are produced by condensing Ph3N with the diacid chlorides of dibasic fatty acids. Add 0.2 mole sebacoyl chloride to a mixture of 0.2 mole Ph3N and 0.4 mole ZnCl2 in 500 ml. CH2Cl2 in 30 min., reflux for 24 hrs., hydrolyze and wash the mixture with H2O. Precipitate the polymer by adding Me2CO. Redissolve the product in CH2Cl2 and precipitate with MeOH; yield: 20 g. of light-yellow solid. When the reactants are present in equimol. amts. the mol. weight of the polymers range between 500 and 6000. Hydrogenation of compds. of type I gives compds. where Z = 2H (II). Poly(sebacoyltriphenylamine) (10 g.) in 150 ml. dioxane is hydrogenated in the presence of 5 g. **Cu** chromate **catalyst** at a maximum pressure of 262 bars at 250°, filtered, the solvent evaporated to yield the product. Poly(adipoyltriphenylamine) and poly(oxalyltriphenylamine) are also described. The reaction with oxalyl chloride also yields as

a major fraction (separated by chromatography) 4,4'-bis(diphenylamino)benzil, yellow crystals, m. 159-60°. The materials of types I and II may be coated by themselves or as a mixture with a film-forming polymer. In the latter case the I or II should preferably be present in stats, of 10-60%. As supports, paper, plastics, or metal foil can be used.

IT **18436-22-1**, Benzil, 4,4'-bis(diphenylamino)-
(as **photoconductor** for electrophotography)

RN 18436-22-1 HCAPLUS

CN Ethanedione, bis[4-(diphenylamino)phenyl]- (9CI) (CA INDEX NAME)



(mixts. with hexaphenylpararosaniline, as **photoconductors** for electrophotography

CC 11 (Radiation Chemistry and Photochemistry)

IT Ammonium, [4-[bis[p-(diphenylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]diphenyl
(as **photoconductor** for electrophotography)

IT Ammonium, [4-[bis[p-(diphenylamino)phenyl]methylene]-2,5-cyclohexadien-1-ylidene]diphenyl
(mixts. with 4,4'-bis(diphenylamino)benzil, as **photoconductor** for electrophotography)

IT **18436-22-1**, Benzil, 4,4'-bis(diphenylamino)-
(as **photoconductor** for electrophotography)

IT 25067-59-8, Carbazole, 9-vinyl-, homopolymer
(as **photoconductors** for electrophotography)

IT 111-19-3, Sebacoyl chloride
(condensation products with triphenylamine, and hydrogenation products thereof, as **photoconductors** for electrophotography)

IT **18436-22-1**, Benzil, 4,4'-bis(diphenylamino)-
(mixts. with hexaphenylpararosaniline, as **photoconductors** for electrophotography)

IT 111-50-2, Adipoyl chloride
(reaction product with triphenylamine, and hydrogenation products thereof, as **photoconductors** for electrophotography)

IT 603-34-9, Triphenylamine
(reaction products with dibasic acid chlorides, and hydrogenation products thereof, as **photoconductors** for electrophotography)

IT 79-37-8, Oxalyl chloride
(reaction products with triphenylamine, and hydrogenation products thereof, as **photoconductors** for electrophotography)

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